



# 2005 Rhode Island Epidemiologic Profile of HIV/AIDS for Prevention and Community Planning

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## Preface

On behalf of the Rhode Island Department of Health, Office of HIV & AIDS, we are pleased to present the 2005 HIV/AIDS Epidemiologic Profile. Our goal this year was to create a report both useful and understandable.

As you may be aware, the data found within is primarily gathered by the Rhode Island Department of Health as part of our public health assurance function. As part of this responsibility, the reportable diseases of HIV and AIDS are diligently recorded, analyzed and monitored by our group of professionals with the end result being a continuous loop back to the community.

Throughout the year the information found within has been shared with numerous groups and organizations as a means of educating as well as receiving feedback from them. One important group instrumental for assisting the Office of HIV & AIDS with this document has been the Rhode Island Community Planning Group for HIV Prevention. We would like to take this time to thank them for their contribution.

I would be remiss if I did not mention the dedication and hard work of several contributors and editors of this work. Sutopa Chowdhury, the Office of HIV & AIDS Epidemiologist is the primary author of this profile and has worked hand in hand with the community to produce his first Epidemiologic Profile for the state. Drs. Bandy, Fulton and Marable all assisted in the review and editing of this document and we are grateful for their contributions and continued guidance. Lucille Minuto also an editor, helped immensely with formatting and design.

We hope you find this edition of our HIV/AIDS Epidemiologic Profile a valuable resource for planning, grant writing and projecting needs of high-risk populations. As always, your input is important and we'd love to hear what you think about this report. By the way if you'd like to share this profile with others please go to [www.health.ri.gov](http://www.health.ri.gov) for a complete copy of this profile.

Sincerely,

Paul G. Loberti, MPH  
Chief Administrator  
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# INTRODUCTION

## INTRODUCTION

The Epidemiologic Profile provides detailed information about the current HIV/AIDS epidemic in Rhode Island. The profile aims to describe the general population of Rhode Island, HIV infected persons, persons with AIDS, and those that are at risk of HIV infection.

The Epidemiologic Profile is part of the commitment of the Rhode Island Department of Health to disseminate health related information to those who need to know. It is designed to serve as a tool at the disposal of the HIV/AIDS Community Planning Group (CPG) to assist them in setting priorities for HIV prevention and care efforts in the state of Rhode Island.

### Organization of the Epidemiologic Profile

This report is organized around three core epidemiological questions. Each question will be represented in a separate chapter, which will include relevant data and interpretations. The core epidemiologic questions are:

- 1) What are the sociodemographic characteristics of the population of Rhode Island?  
This section provides information on the demographic and socioeconomic characteristics of Rhode Island.
- 2) What is the impact of the HIV/AIDS epidemic on Rhode Island?  
This section examines the scope of the HIV/AIDS epidemic in Rhode Island. This section is divided into two parts; the first part addresses AIDS cases and the second part addresses HIV infected (not AIDS) individuals
- 3) Who is experiencing differential impact from the HIV/AIDS epidemic in Rhode Island?  
This section addresses certain populations that have been disproportionately affected by the epidemic. This section relies heavily on HIV data (not AIDS) as it aims to address current trends in HIV transmission.

## HIV/AIDS Surveillance in Rhode Island

### Surveillance mandate

In accordance with Rhode Island's General Laws, Chapter 23 and the "Rules and Regulations for the Reporting of Communicable Diseases" of the Rhode Island Department of Health, both HIV and AIDS are reportable to the Office of HIV & AIDS by hospitals, laboratories and licensed health care professionals.

### Case definitions

In its collection, assessment, and aggregation of HIV and AIDS reports, the Rhode Island Department of Health conforms to surveillance case definitions of HIV and AIDS promulgated by the Centers for Disease Control and Prevention (CDC) and revised over time. Case definitions have been published in 1986, 1987, 1992, and 1999.

- CDC. Classification system for human T-lymphotropic virus type III/lymphadenopathy-associated virus infections. MMWR 1986; 35:334.
- CDC. Revision of the CDC surveillance case definition for acquired immunodeficiency syndrome. MMWR 1987; 36:1-15S.
- CDC. 1993 Revised Classification System for HIV Infection and Expanded Surveillance Case Definition for AIDS Among Adolescents and Adults. MMWR 1992; 41(RR-17).
- CDC. Appendix: Revised Surveillance Case Definition for HIV Infection. MMWR 1999; 48(RR13); 29-31.

It is important to note that revisions in the CDC surveillance definitions of HIV and AIDS may cause discontinuities in trend data. Between 1992 and 1993, for example, the number of AIDS cases in Rhode Island and in the United States as a whole increased dramatically because of CDC's expanded surveillance case definition for AIDS.

## Data sources

Case surveillance of AIDS was initiated in Rhode Island in 1983, and HIV surveillance began in 1989. These surveillance systems provide information on risk factors, patient demographics, and the clinical manifestations of disease over time. The present Epidemiologic Profile relies primarily on these case surveillance data. However, the Office of HIV & AIDS utilizes an array of data sources to establish the most complete and accurate picture of HIV and AIDS in Rhode Island and the populations at highest risk for infection. The list below identifies many of the sources of information used by the Office of HIV & AIDS.

*HARS: (HIV/AIDS Reporting System)* Includes all reported cases of AIDS since 1983 and HIV positive test results since 1989.

*HIVREP: (HIV Reporting System)* Preceded the HARS system. Contains reports of illness by lab test code and therefore is not an unduplicated count of cases.

*HIV Unique-Identifier Reporting System:* Implemented in 2000, providers are required to report all cases of HIV infection with a unique patient identifier and without names. Provides an unduplicated count of cases.

*HIVSER: (HIV Serology Database)* - Includes all positive and negative HIV test results submitted to the Rhode Island Department of Health State Laboratories.

*CTR: (Counseling, Testing and Referral Database)-* Provides information on all HIV tests and services provided at CTR sites funded by the Rhode Island Department of Health.

*BRFSS: (Behavioral Risk Factor Surveillance System)*

*YRBSS: (Youth Risk Behavior Survey)*

*STD Database:* Information from the Rhode Island Department of Health's Office of Communicable Diseases that is used for identifying at-risk populations and co-infection.

*Tuberculosis Database:* Information from the TB Surveillance System is matched with HARS to identify missing cases of AIDS in the form of unreported co-infections (HIV-TB) as cases of AIDS.

*Cancer Registry:* Information used for identifying individuals with AIDS-defining malignancies.

*Social Security Death Index / Rhode Island State Medical Examiner:* Two sources used to identify deaths attributed to AIDS and also to follow-up on previously reported cases.

*Hospital Medical Records:* Patient medical records are utilized in AIDS validation studies and in the follow-up of previously reported cases.

*ACI Medical Records:* All convicted inmates are tested for HIV at intake in the ACI (Adult Correctional Institute). The system in place has provisions to eliminate duplicate HIV positive test results.

## Data Limitations

The ideal HIV/AIDS surveillance system would be capable of detecting and accurately detailing all new HIV infections so that HIV prevention programs could most accurately reflect the current factors causing people to be at risk. Since 1983, the Department of Health has required the reporting of all AIDS cases and since 1989 has required all HIV positive test results to be reported. The HIV positive test results have been collected without names or other identifying information in order to protect the anonymity of patients. However, this "no names/no identifiers" system fostered duplication and incomplete information. As a result, a new HIV reporting system was implemented in 2000 which uses a unique identifier code to maintain patient anonymity, but will eliminate case duplication and will allow for follow-up. This new HIV reporting system greatly improves the ability of the Office of HIV & AIDS to conduct HIV surveillance now and in the future.

Despite the recent changes in the reporting of HIV, it is important to note that a newly reported case of HIV (or in the past an HIV positive test) does not necessarily signify a recent infection with HIV. Many individuals are unaware or are unwilling to be tested for HIV and therefore may be tested and diagnosed long after the initial infection occurred. Moreover, an individual infected with HIV may not progress to AIDS for many years, thereby making AIDS data potentially unreliable for the purpose of detailing current transmission patterns.

Third parties, most frequently health care providers, report much of the data needed by the Office of HIV & AIDS. As a result, these reports rely on the patients and providers to accurately and completely disclose relevant information pertaining to risk factors, demographic characteristics and clinical history.

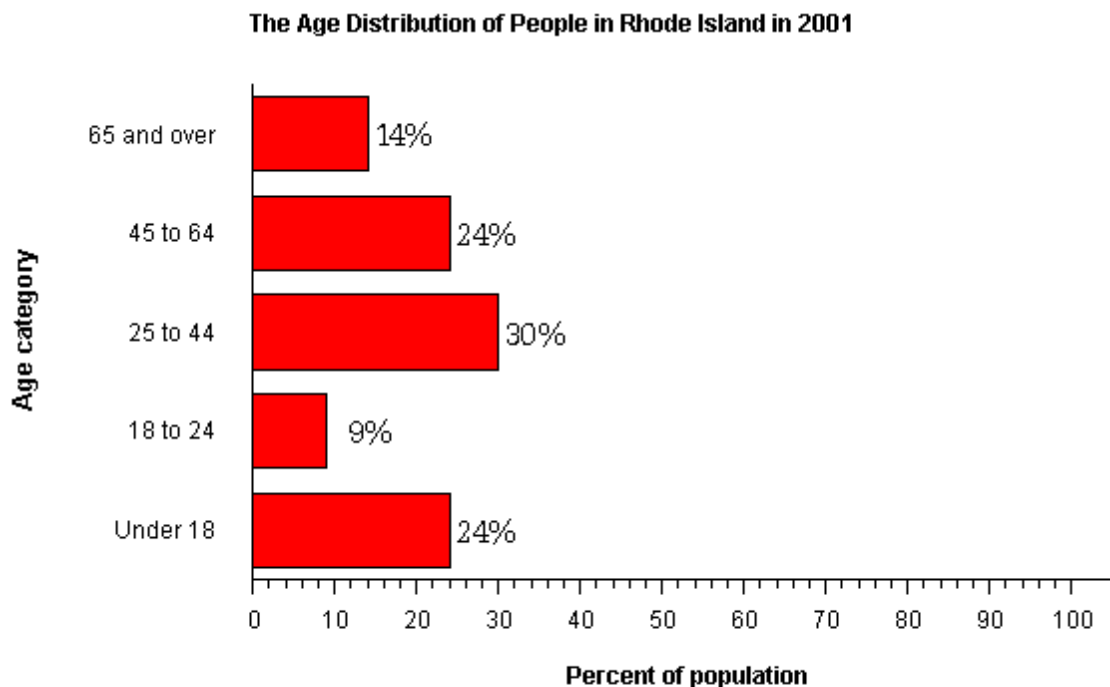


# Core Epidemiologic Questions

# 1) What are the sociodemographic characteristics of the population of Rhode Island?

Rhode Island is a small but densely populated state; it has the distinction of being the second most densely populated state in the United States. In 2001, Rhode Island had a household population of 1.0 million - **529,000 (52 percent) females** and **491,000 (48 percent) males**. The **median age was 37.5 years**. **Twenty-four percent of the population were under 18 years** and **14 percent were 65 years and older**.

Figure 1. Age Distribution of People in Rhode Island in 2001.



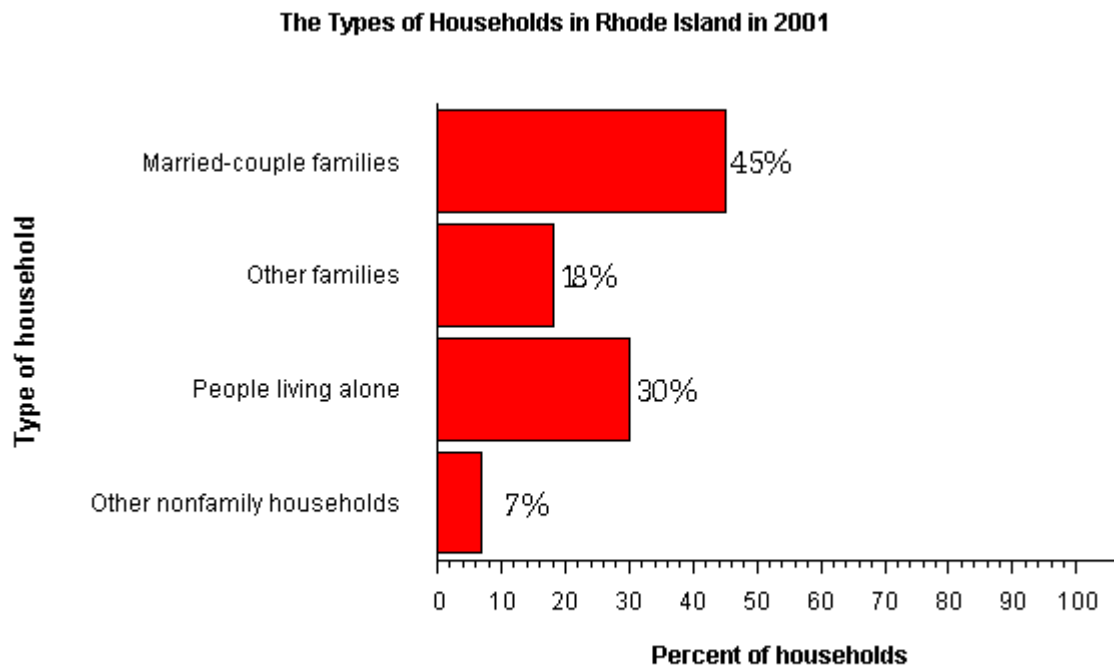
Source: U.S. Census Bureau, 2001 Supplementary Survey

For people reporting one race alone, **87 percent were White; 5 percent were Black or African American; less than 0.5 percent were American Indian and Alaska Native; 3 percent were Asian; less than 0.5 percent were Native Hawaiian and Other Pacific Islander, and 5 percent were some other race**. Two percent reported two or more races. **Nine percent of the people in Rhode Island were Hispanic. Eighty-two percent of the people in Rhode Island were White non-Hispanic**. People of Hispanic origin may be of any race.

**HOUSEHOLDS AND FAMILIES:** In 2001 there were 406,000 households in Rhode Island. The average household size was 2.51 people.

Families made up 63 percent of the households in Rhode Island. This figure includes both married-couple families (45 percent) and other families (18 percent). Non-family households made up 37 percent of all households in Rhode Island. Most of the non-family households were people living alone, but some were comprised of people living in households in which no one was related to the householder.

Figure 2. Types of Households in Rhode Island 2001.

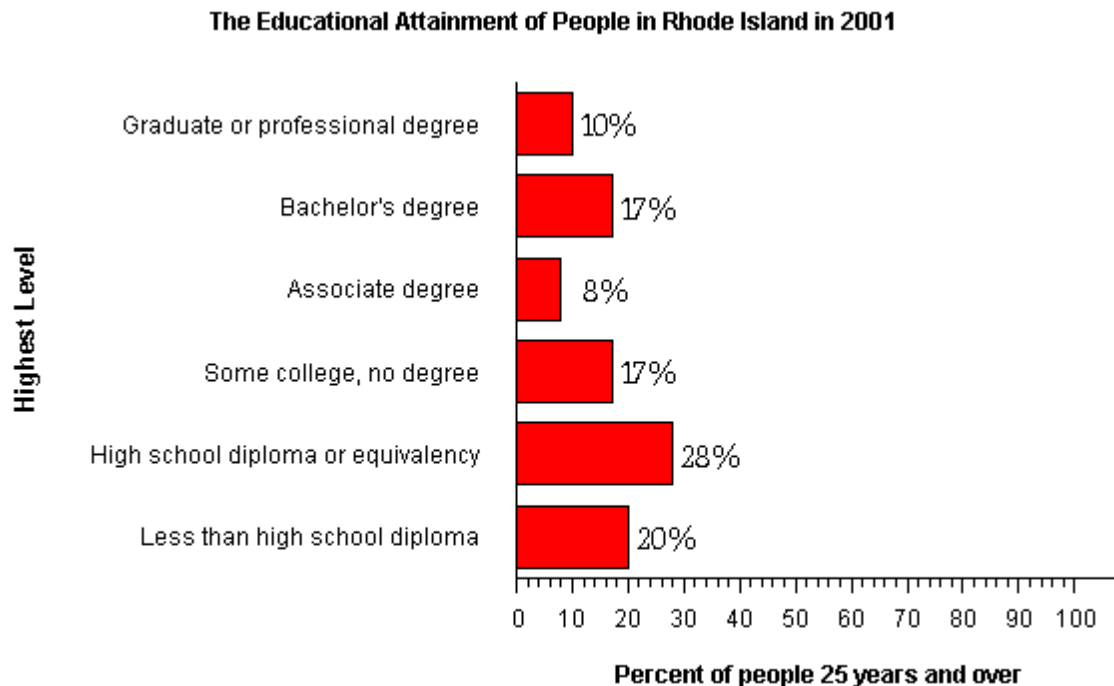


Source: U.S. Census Bureau, 2001 Supplementary Survey

**EDUCATION:** In 2001, 80 percent of people 25 years and over had at least graduated from high school and 27 percent had a bachelor's degree or higher. Among people 16 to 19 years old, 9 percent were dropouts; they were not enrolled in school and had not graduated from high school.

The total school enrollment in Rhode Island was 264,000 in 2001. Preprimary school enrollment was 28,000 and elementary or high school enrollment was 172,000 children. College enrollment was 64,000.

Figure 3. The Educational Attainment of People in Rhode Island in 2001.



Source: U.S. Census Bureau, 2001 Supplementary Survey

**DISABILITY:** In Rhode Island, among people at least five years old in 2001, 16 percent reported a disability. The likelihood of having a disability varied by age - from 7 percent of people 5 to 20 years old, to 14 percent of people 21 to 64 years old, and to 42 percent of those 65 and older.

**INCOME:** The median income of households in Rhode Island was \$42,784. Seventy-six percent of the households received earnings and 17 percent received retirement income other than Social Security. Twenty-eight percent of the households received Social Security. The average income from Social Security was \$12,019. These income sources are not mutually exclusive; that is, some households received income from more than one source.

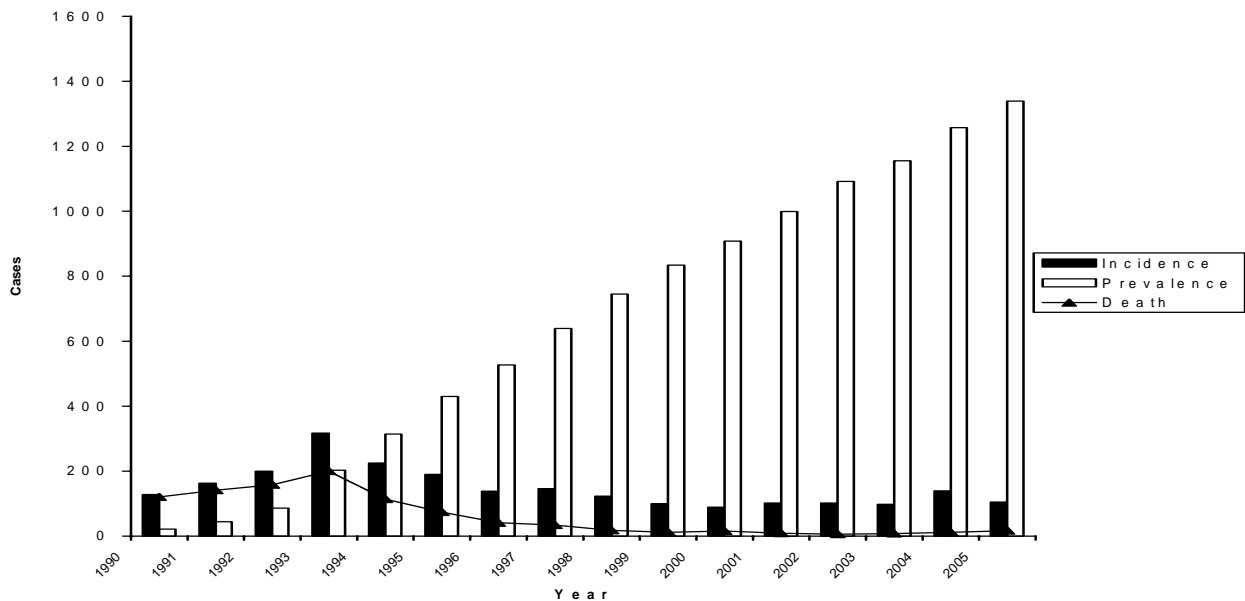
**POVERTY AND PARTICIPATION IN GOVERNMENT PROGRAMS:** In 2001, 12 percent of people were in poverty. Seventeen percent of related children under 18 were below the poverty level, compared with 11 percent of people 65 years old and over. Nine percent of all families and 25 percent of families with a female householder and no husband present had incomes below the poverty level. Twenty percent of the households in Rhode Island received means-tested public assistance or non-cash benefits.

## 2) What is the Impact of HIV/AIDS on Rhode Island?

### AIDS in Rhode Island

As of December 31, 2005, a total of 2,712 cases of AIDS have been diagnosed in Rhode Island residents. Since 1993, the incidence, which is the number of new cases of AIDS, and deaths among AIDS cases have decreased dramatically, coinciding with the widespread use of more effective treatments. As seen in Figure 1, AIDS incidence has decreased by 67% (from 317 new cases in 1993 to 105 new cases in 2005). During the same time period the AIDS prevalence, or the total number of AIDS cases living in Rhode Island each year, has increased 6 fold (from 203 cases in 1993 to 1,339 cases in 2005).

Figure 4. Rhode Island AIDS Incidence, Prevalence, and Deaths, 1990-2005



Of the 2,712 cases diagnosed, the majority were males (76%), between 30-39 (44%) years of age and White (56%). Collectively MSM and intravenous drug use (IDU) were the two most common modes of exposure. Table 1 shows a detailed demographic profile of all AIDS cases diagnosed since 1982. Table 1 shows the demographic characteristics of all 2,712 cases.

Table 1. Demographic Characteristics of RI AIDS Cases: Cumulative (1982-2005)

Demographic Characteristics	RI Cases 1982-2005
<b>Gender</b>	
Male	2,054 (76%)
Female	658 (24%)
Total	2,712 (100%)
<b>Age Group</b>	
<5	21 (1%)
5-12	6 (<1%)
13-19	11 (<1%)
20-29	406 (15%)
30-39	1,200 (44%)
40-49	816 (30%)
50+	252 (9%)
Total	2,712 (100%)
<b>Race/Ethnicity</b>	
Hispanic-All Races	488 (18%)
American Indian/Alaska Native	22 (1%)
Asian	<5*
Legacy Asian/Pacific Islander	13 (<1%)
African American	678 (25%)
Native Hawaiian/ Pacific Islander	<5 *
White	1,504 (56%)
Total	2,712 (100%)
<b>Exposure Category</b>	
MSM	936 (35%)
IDU	949 (35%)
MSM/IDU	139 (5%)
Hemophilia/Coagulation Disorder	38 (1%)
Heterosexual Contact	571 (21%)
Transfusion/Transplant	32 (1%)
**Mother with HIV	27 (1%)
No Risk Reported	20 (<1%)
Total	2,712 (100%)
*Cell contained less than five cases	
**Pediatric Transmission Modes	

## Epidemiological Trends of AIDS in Rhode Island

The demographic profile of those diagnosed with AIDS has changed over time. Tables 2&3 show the demographic characteristics of AIDS cases by year of diagnosis.

**Table 2. Demographic Characteristics of RI AIDS Cases by Year of Diagnosis 1995-1999**

Demographic Characteristics	1995	1996	1997	1998	1999
<b>Gender</b>					
Male	127 (73%)	91 (73%)	99 (72%)	89 (74%)	71 (74%)
Female	48 (27%)	34 (27%)	38 (28%)	32 (26%)	25 (26%)
Total	175 (100%)	125 (100%)	137 (100%)	121 (100%)	96 (100%)
<b>Age Group</b>					
<13	<5 *	<5 *	<5 *	<5 *	<5 *
13-19	<5 *	<5 *	<5 *	<5 *	<5 *
20-29	20 (11%)	8 (6%)	12 (9%)	11 (9%)	5 (5%)
30-39	84 (48%)	67 (54%)	62 (46%)	54 (45%)	31 (32%)
40-49	52 (30%)	35 (28%)	49 (36%)	43 (36%)	41 (43%)
50+	16 (9%)	15 (12%)	12 (9%)	10 (8%)	18 (19%)
Total	175 (100%)	125 (100%)	137 (100%)	121 (100%)	96 (100%)
<b>Race/Ethnicity</b>					
Hispanic-All Races	39 (22%)	22 (18%)	33 (24%)	34 (28%)	24 (25%)
American Indian/Alaska Native	<5 *	<5 *	<5 *	<5 *	<5 *
Asian	<5 *	<5 *	<5 *	<5 *	<5 *
African American	45 (26%)	38 (30%)	37 (27%)	33 (27%)	16 (17%)
Native Hawaiian/ Pacific Islander	<5 *	<5 *	<5 *	<5 *	<5 *
White	87 (50%)	63 (50%)	65 (47%)	52 (43%)	55 (57%)
Total	175 (100%)	125 (100%)	137 (100%)	121 (100%)	<5 *
<b>Exposure Category</b>					
MSM	56 (32%)	33 (26%)	43 (31%)	34 (28%)	25 (26%)
IDU	71 (41%)	56 (45%)	51 (37%)	42 (35%)	34 (35%)
MSM/IDU	10 (6%)	9 (7%)	5 (4%)	5 (4%)	<5 *
Hemophilia/Coagulation Disorder	<5 *	<5 *	<5 *	<5 *	<5 *
Heterosexual Contact	33 (19%)	24 (19%)	35 (26%)	35 (29%)	29 (30%)
Transfusion/Transplant	<5 *	<5 *	<5 *	<5 *	<5 *
Mother with HIV	<5 *	<5 *	<5 *	<5 *	<5 *
No Risk Reported	<5 *	<5 *	<5 *	<5 *	<5 *
Total	175 (100%)	125 (100%)	137 (100%)	121 (100%)	96 (100%)

\* Cell contained less than five cases

**Table 3. Demographic Characteristics of RI AIDS Cases by Year of Diagnosis 2000-2005**

Demographic Characteristics	2000	2001	2002	2003	2004	2005
<b>Gender</b>						
Male	67 (76%)	64 (65%)	75 (75%)	70 (71%)	95 (68%)	67 (64%)
Female	21 (24%)	35 (35%)	24 (25%)	28 (29%)	44 (32%)	38 (36%)
Total	88 (100%)	99(100%)	99 (100%)	98 (100%)	139(100%)	105 (100%)
<b>Age Group</b>						
<13	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *
13-19	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *
20-29	13 (15%)	14 (14%)	8 (8%)	11 (11%)	16 (11%)	8 (8%)
30-39	34 (39%)	37 (37%)	37 (37%)	34 (35%)	58 (42%)	29 (28%)
40-49	32 (36%)	31 (31%)	41 (41%)	37 (38%)	47 (34%)	51 (49%)
50+	8 (9%)	15 (15%)	12 (12%)	12 (12%)	18 (13%)	16 (17%)
Total	88 (100%)	99 (100%)	99 (100%)	98 (100%)	139 (100%)	105(100%)
<b>Race/Ethnicity</b>						
Hispanic-All Races	16 (18%)	27 (27%)	18 (18%)	24 (24%)	42 (30%)	21 (20%)
American Indian/Alaska Native	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *
Asian	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *
African American	26 (30%)	30 (30%)	32 (33%)	37 (38%)	39 (28%)	32 (30%)
Native Hawaiian/ Pacific Islander	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *
White	41 (47%)	40 (40%)	47 (48%)	36 (37%)	55 (40%)	49 (47%)
Legacy Asian/Pacific Islander	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *
Total	88 (100%)	99 (100%)	99 (100%)	98 (100%)	139 (100%)	105 (100%)
<b>Exposure Category</b>						
MSM	23 (26%)	17 (17%)	28 (28%)	27 (28%)	38 (27%)	30 (29%)
IDU	32 (36%)	37 (37%)	32 (32%)	26 (27%)	31 (22%)	26 (25%)
MSM/IDU	<5 *	<5 *	<5 *	<5 *	7 (5%)	5 (5%)
Hemophilia/Coagulation Disorder	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *
Heterosexual Contact	27 (31%)	40 (40%)	34 (37%)	41 (42%)	56 (40%)	35 (33%)
Transfusion/Transplant	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *
Mother with HIV	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *
No Risk Reported	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *
Total	88 (100%)	99 (100%)	99 (100%)	98 (100%)	139 (100%)	105 (100%)
* Cell contained less than five cases						

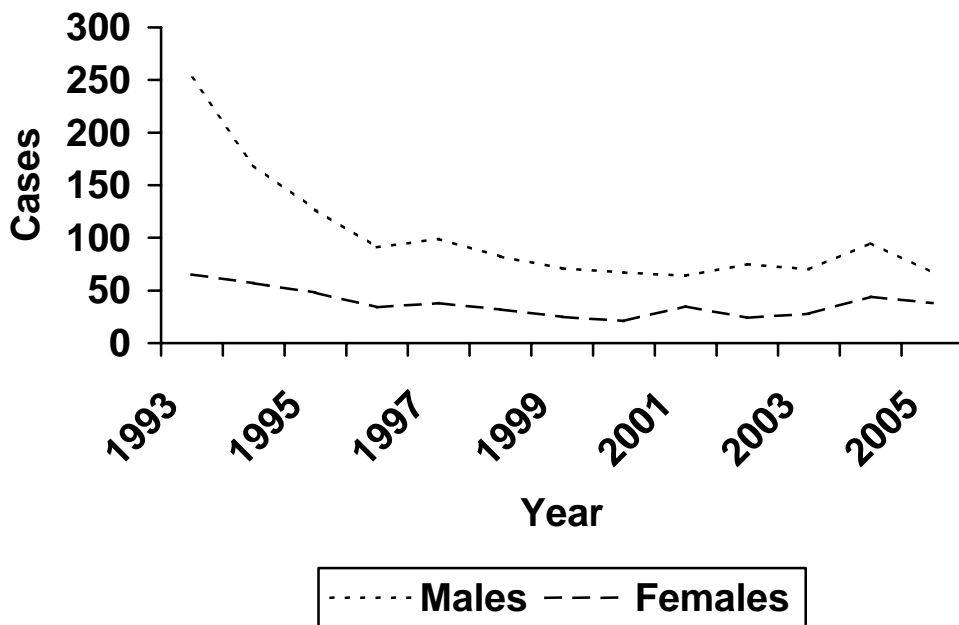


### Gender

The total number of reported AIDS cases in males which continued to far exceed the number of female AIDS cases in Rhode Island for the last couple of years, has slowed as evidenced by a steady increase in the number of reported female cases. While there are more male cases, the gap between genders in the number of AIDS cases has shown a steady decrease since 1993. In 1993, there were 187 more cases in males than females in Rhode Island. This year the gap between reported male and female cases is decreased by a 4% increase in the number of reported female cases for the year 2005 as compared to 2004.

While the increase in the proportion of women being diagnosed with AIDS is a national trend, this trend is more profound in Rhode Island. With Rhode Island ranking the 39<sup>th</sup> according to the total number of AIDS cases diagnosed through the year 2000 it ranked 30<sup>th</sup> according to the total number of females AIDS cases diagnosed through the year 2000.

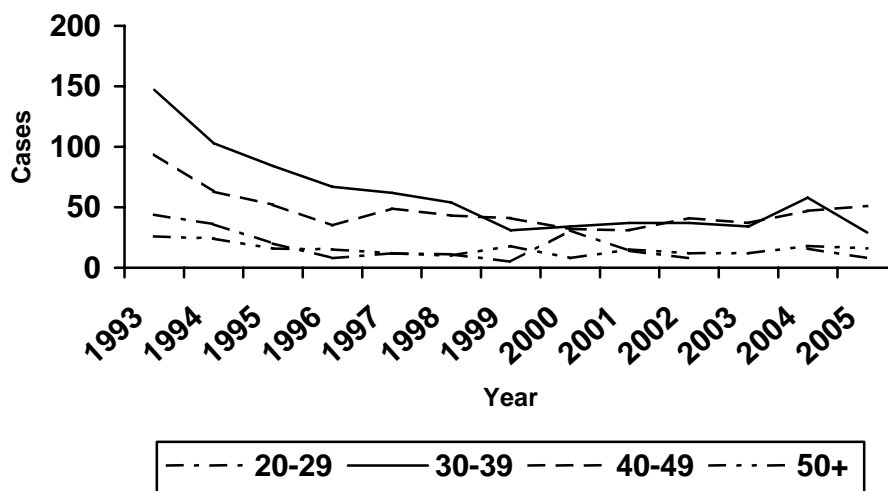
Figure 5. Rhode Island AIDS Incidence by Gender, 1993-2005



## Age

The age distribution of new AIDS case has maintained a fairly stable trend over the years. As seen in figure 6, the rate of AIDS incidence has been significantly higher in the age groups 30 to 39 and 40 to 49 years, however in 2005 among the newly reported AIDS cases, 40 to 49 age group is predominant.

Figure 6. Rhode Island AIDS Incidence by Age, 1993-2005



### Race and Ethnicity

Figure 7 shows that the majority of AIDS cases in Rhode Island have occurred in Whites (56%). However, 41% of the AIDS cases have occurred in African Americans and Hispanics who account for 14% of Rhode Island's population, as shown in figure 8. African Americans experience the highest rate of disease, they account for 25% of all AIDS cases and only 5% of the total population of Rhode Island. Hispanics experience the second highest rate of disease, they account for 18% of all AIDS cases while they represent only 9% of the total population of Rhode Island.

Figure 7. Percentage of Cumulative AIDS Cases by Race in Rhode Island Through Dec. 2005

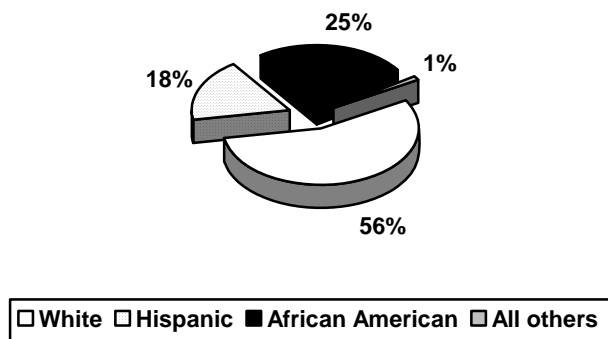
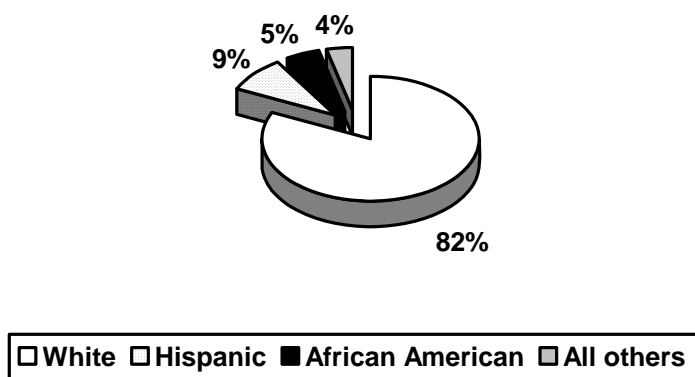


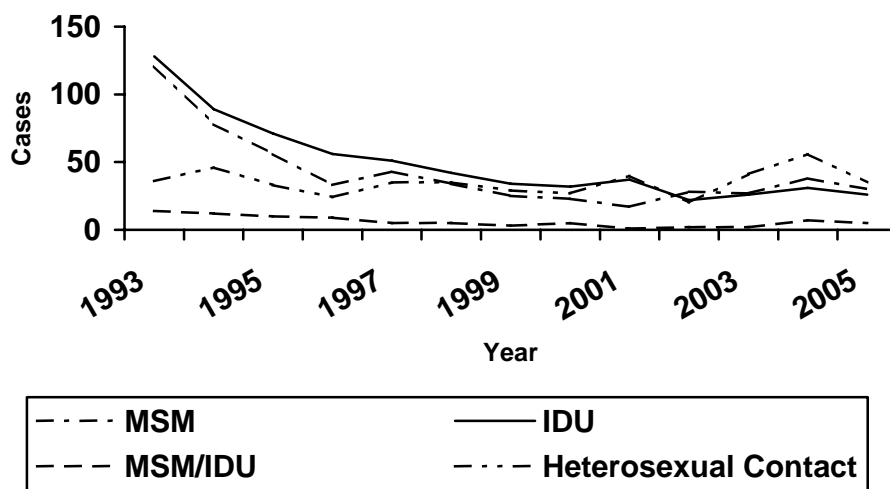
Figure 8. Percentage of Rhode Island Population by Race, 2000 Census



## Exposure Category

While men who have sex with men (MSM) and injecting drug users (IDU) have been the dominant exposure categories since the beginning of the epidemic, this pattern is changing. Since 1993, IDU and MSM-associated AIDS incidence have shown a downward trend, with IDU-associated AIDS incidence dropping by 80% and MSM-associated AIDS incidence dropping by 75%. AIDS cases associated with heterosexual contact on the other hand have maintained a fairly constant incidence, with modest fluctuations, in the same time period.

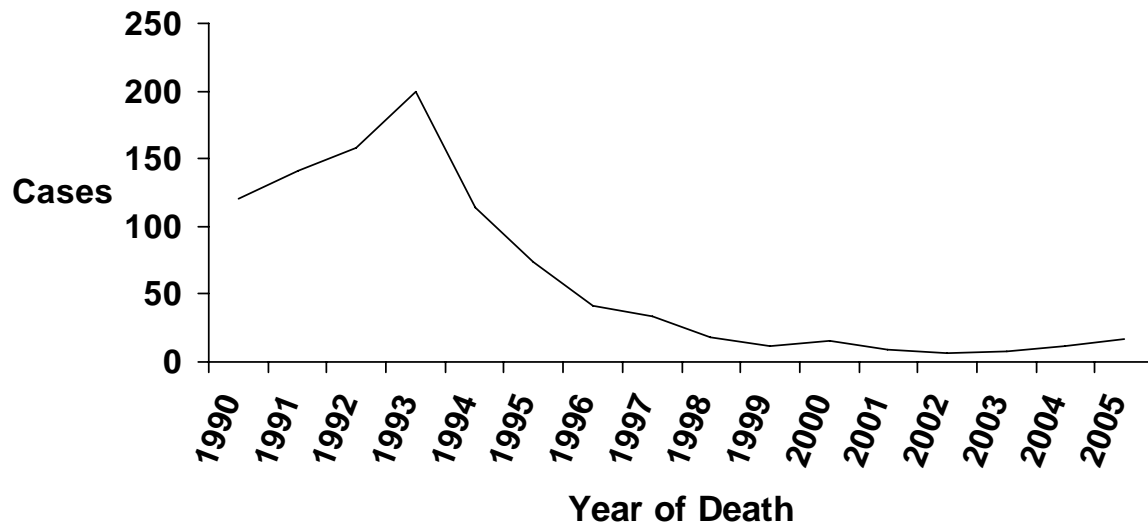
Figure 9. Rhode Island AIDS Incidence by Exposure Category, 1993-2005



## Death Among AIDS Cases

In Rhode Island from the beginning of the epidemic through 2005, 1377 deaths occurred among persons with AIDS. Since 1994, consistently the number of deaths has steadily declined with the exception of a small increase in 2000 and 2005, (Figure 10). The demographic profile of deaths among AIDS cases is similar to that of AIDS incidence, in regards to gender, race/ethnicity, age and exposure category distribution.

Figure 10. AIDS Deaths, RI Residents, 1990-2005



## Pediatric AIDS Cases

From 1982 to 2005, 27 children between the ages of zero and 12 were diagnosed with AIDS in Rhode Island. Most cases were male (76 %) and Black (56 %). Transmission from a mother with HIV (87 %) was the most common risk factor.

Table 4. Percentage of children ages 0-12 reported with AIDS, RI residents, 1982-2005, by demographic characteristic

Demographic Characteristic (N=27)	%
<b>Sex</b>	
Male	76
Female	24
Total	100
<b>Race/Ethnicity</b>	
White	25
Black	56
Hispanic	19
Asian	*
Native American	*
Total	100
<b>Risk Factor</b>	
Mother w/ HIV	87
Pediatric Transfusion	13
Total	100
* Cell contained less than five cases	

# HIV in Rhode Island

## Overview

Between January 1, 2000 and December 31, 2005, there were 858 Rhode Island residents newly diagnosed with HIV and reported to the Rhode Island Department of Health. This number provides a minimum estimate of HIV infection, as it does not include HIV infected individuals who have not been tested yet and those who get tested anonymously.

According to the Centers for Disease Control and Prevention (CDC) at the end of 2003, 405,926 people were living with AIDS and 1039,000-1185,000 people were living with HIV and AIDS in the United States. Based on this estimate the estimated number of people living with HIV and AIDS in Rhode Island in 2005 is 3272-3732.

The reporting of positive HIV test results has been mandatory in Rhode Island since 1989. From 1989 through 1999, reports purposely did not contain sufficient identifying information to establish the uniqueness of an individual test result with certainty, and because many people testing positive for HIV frequently received more than one test, the number of positive tests exceeded the numbers of persons with newly diagnosed HIV. For this reason, the number of positive HIV tests received annually during this period of observation was used only as a very rough indicator of the incidence of newly diagnosed HIV, influenced not only by the true incidence rate, but also by norms of HIV testing, including the rate at which high-risk individuals sought testing, the size of groups such as prison inmates for whom testing was mandatory, and the average number of additional tests sought after an initial positive test result.

From the year 2000 onward, reports of positive HIV test results have contained unique personal identifiers with which duplicate test results may be culled from the aggregate with great certainty, allowing greater confidence in the interpretation of HIV data.

There were 858 new cases of HIV diagnosed in the period from January 1, 2000 to December 31, 2005. Table 5 represents a break down of those 858 cases by demographic characteristics and year of diagnosis.

Table 5. Demographic Characteristics of HIV Cases, Jan. 1, 2000 to Dec. 31, 2005

Demographic Characteristics	2000	2001	2002	2003	2004	2005
<b>Gender</b>						
Male	85 (69%)	109 (73%)	106 (72%)	103 (77%)	123 (69%)	81 (65%)
Female	38 (31%)	40 (27%)	42 (28%)	31 (23%)	55 (31%)	43 (35%)
Total	123 (100%)	149 (100%)	148 (100%)	134 (100%)	178 (100%)	124 (100%)
<b>Age Group</b>						
<13	<5 *	<5 *	<5 *	<5 *	<5 *	<5*
13-19	<5 *	5 (3%)	5 (3%)	<5 *	<5 *	<5*
20-29	25 (20%)	32 (22%)	36 (24%)	27 (20%)	36 (20%)	23 (19%)
30-39	56 (46%)	59 (40%)	57 (39%)	53 (40%)	69 (39%)	50 (40%)
40-49	31 (25%)	41 (28%)	41 (28%)	32 (24%)	59 (33%)	35 (28%)
50+	7 (6%)	12 (8%)	9 (6%)	17 (13%)	10 (6%)	15 (12%)
Total	123 (100%)	149 (100%)	148 (100%)	134 (100%)	178 (100%)	124 (100%)
<b>Race/Ethnicity</b>						
White	42 (34%)	54 (36%)	65 (44%)	43 (32%)	78 (44%)	57 (46%)
African American	38 (31%)	50 (34%)	50 (34%)	50 (37%)	45 (25%)	35 (28%)
Hispanic	38 (31%)	44 (30%)	33 (22%)	38 (28%)	51 (29%)	29 ((23%)
Asian	5 (4%)	<5 *	<5 *	<5 *	<5 *	<5*
Native American	<5 *	<5 *	<5 *	<5 *	<5 *	<5*
Total	123 (100%)	149 (100%)	148 (100%)	134 (100%)	178 (100%)	124 (100%)
<b>Risk Factor</b>						
MSM	29 (24%)	47 (32%)	43 (29%)	45 (34%)	58 (33%)	45 (36%)
IDU	26 (21%)	26 (17%)	25 (17%)	13 (10%)	23 (13%)	12 (10%)
MSM / IDU	<5 *	<5 *	<5 *	5 (4%)	5 (3%)	<5*
Heterosexual Contact	25 (20%)	31 (21%)	22 (15%)	25 (19%)	36 (20%)	20 (16%)
Transfusion	<5 *	<5 *	<5 *	<5 *	<5 *	6 (5%)
No Risk Specified	41 (33%)	43 (29%)	56 (39%)	44 (33%)	53 (30%)	37 (30%)
Total	123 (100%)	149 (100%)	148 (100%)	134 (100%)	178 (100%)	124 (100%)
<b>County of Residence</b>						
Homeless	<5 *	<5 *	<5 *	<5 *	<5 *	<5*
Bristol	<5 *	<5 *	<5 *	<5 *	<5 *	<5*
Kent	9 (7%)	10 (7%)	8 (5%)	<5 *	15 (8%)	7 (6%)
Newport	5 (4%)	<5 *	6 (4%)	<5 *	6 (3%)	7 (6%)
Providence	104 (85%)	127 (85%)	126 (85%)	122 (91%)	147 (83%)	105 (85%)
Washington	<5 *	6 (4%)	<5 *	<5 *	8 (5%)	<5*
Total	123 (100%)	149 (100%)	148 (100%)	134 (100%)	178 (100%)	124 (100%)



Table 6. Demographic Characteristics of RI HIV cases 2000-2005:

Demographic Characteristics	Numbers, %
<b>Gender</b>	
Male	607 (71%)
Female	251 (29%)
Total	858 (100%)
<b>Age Group</b>	
<13	<5 *
13-19	23 (3%)
20-29	118 (21%)
30-39	344 (40%)
40-49	239 (28%)
50+	71 (8%)
Total	858 (100%)
<b>Race/Ethnicity</b>	
White	340 (40%)
African American	268 (31%)
Hispanic	234 (27%)
Asian	14 (2%)
Native American	<5 *
Total	858 (100%)
<b>Risk Factor</b>	
MSM	271 (32%)
IDU	125 (15%)
MSM / IDU	148 (2%)
Heterosexual Contact	163 (19%)
Transfusion	12 (1%)
No Risk Specified	267 (31%)
Total	858 (100%)
<b>County of Residence</b>	
Homeless	<5*
Bristol	12 (1%)
Kent	52 (6%)
Newport	32 (4%)
Providence	734 (86%)
Washington	27 (3.%)
Total	858 (100%)

Figure 11. Rhode Island HIV Incidence 2000-2005

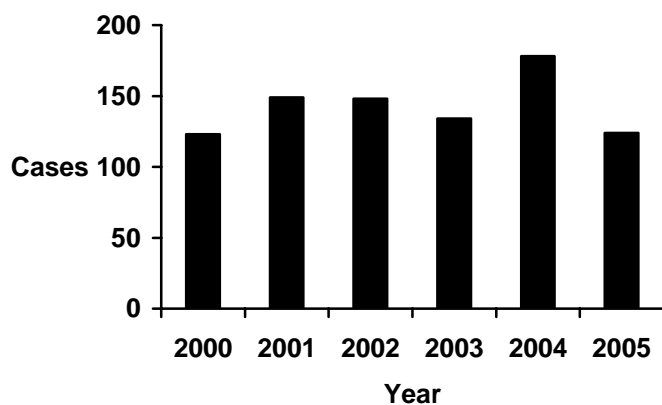


Figure 12. Rhode Island HIV Incidence by Gender 2000-2005

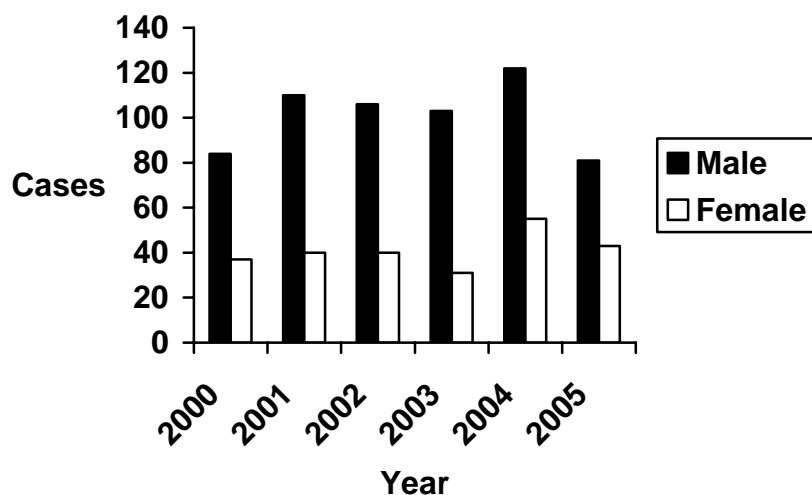
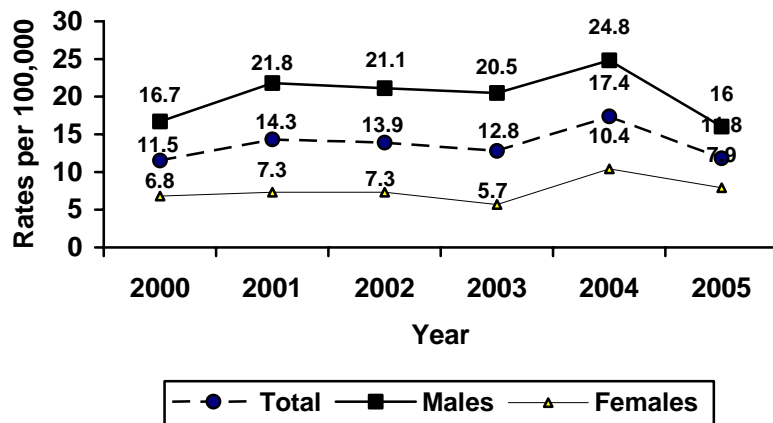


Figure 13. Rhode Island Reported HIV Cases per 100,000 Population, 2000-2005



Rates are based on the 2000 RI population as calculated by the U.S. Census Bureau

The mode of exposure and demographic characteristics of those infected with HIV differ significantly between both genders. Tables 7 and 8 illustrate these differences among males and females respectively.

Table 7. Demographic Characteristics of **Male HIV Cases**, January 1, 2000 to December 31, 2005.

Demographic Characteristics	Number of Newly Diagnosed Cases of HIV in Male						
	2000	2001	2002	2003	2004	2005	Total
<b>Age Group</b>							
<13	<5 *	<5 *	<5 *	<5 *	<5 *	<5*	<5 *
13-19	<5 *	<5 *	<5 *	<5 *	<5 *	<5*	12 (2%)
20-29	13 (16%)	20 (18%)	27 (26%)	18 (18%)	19 (15%)	16 (20%)	114 (19%)
30-39	36 (43%)	42 (38%)	40 (38%)	43 (42%)	46 (37%)	27 (33%)	233 (38%)
40-49	27 (32%)	36 (33%)	28 (26%)	26 (25%)	46 (37%)	30 (37%)	193 (32%)
50+	7 (8%)	9 (8%)	7 (7%)	15 (15%)	10 (8%)	7 (9%)	55 (9%)
Total	84 (100%)	114 (100%)	106 (100%)	103 (100%)	123 (100%)	81 (100%)	607 (100%)
<b>Race/Ethnicity</b>							
White	33 (39%)	44 (40%)	51 (48%)	37 (36%)	64 (52%)	41 (51%)	273 (45%)
African American	20 (24%)	32 (29%)	37 (35%)	33 (32%)	20 (16%)	22 (27%)	164 (27%)
Hispanic	26 (31%)	33 (30%)	18 (17%)	30 (29%)	36 (29%)	16 (20%)	156(26%)
Asian/Pac Islander	5 (6%)	<5 *	<5 *	<5 *	<5 *	<5*	13 (2%)
Native American	<5 *	<5 *	<5 *	<5 *	<5 *	<5*	<5 *
Total	84 (100%)	110(100%)	106 (100%)	103 (100%)	123 (100%)	81(100%)	607 (100%)
<b>Risk Factor</b>							
MSM	28 (33%)	48 (44)	43 (41%)	45 (44%)	58 (47%)	45 (56%)	271 (45%)
IDU	17 (20%)	19 (17%)	16 (15%)	9 (9%)	15 (12%)	7 (9%)	81 (13%)
MSM / IDU	<5 *	<5 *	<5 *	5 (5%)	5 (4%)	<5 *	18 (3%)
Heterosexual Contact	10 (12%)	13 (12%)	11 (10%)	12 (12%)	16 (13%)	9 (11%)	75 (12%)
Transfusion	<5 *	<5 *	<5 *	<5 *	<5 *	<5*	<5 *
No Risk Specified	27 (32%)	28 (26%)	36 (34%)	31 (30.1%)	29 (23.6%)	15 (19%)	159 (26%)
Total	84 (100%)	110 (100%)	106 (100%)	103 (100%)	123 (100%)	81 (100%)	607 (100%)

\* Cell contained less than five cases

Table 8. Demographic Characteristics of **Female HIV Cases**, January 1, 2000 to December 31, 2005.

Demographic Characteristics	Number of Newly Diagnosed Cases of HIV in Females						
	2000	2001	2002	2003	2004	2005	Total
<b>Age Group</b>							
<13	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *
13-19	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	11 (4%)
20-29	12 (32%)	12 (30%)	9 (23%)	10 (32%)	17 (31%)	7 (16%)	67 (27%)
30-39	19 (51%)	17 (43%)	18 (45%)	10 (32%)	23 (42%)	23 (55%)	111 (44%)
40-49	<5 *	6 (15%)	12 (29%)	6 (19%)	13 (24%)	5 (12%)	46 (18%)
50+	<5 *	<5 *	<5 *	<5 *	<5 *	8 (19%)	16 (6%)
Total	38 (100%)	40 (100%)	42 (100%)	31 (100%)	55 (100%)	43 (100%)	251 (100%)
<b>Race/Ethnicity</b>							
White	8 (22%)	10 (25%)	13 (33%)	6 (19%)	14 (26%)	16 (37%)	67 (27%)
African American	18 (49%)	18 (45%)	14 (35%)	15 (48%)	25 (46%)	13 (30%)	104 (41%)
Hispanic	12 (32%)	12 (30%)	15 (36%)	10 (32%)	15 (27%)	13 (30%)	78 (31%)
Asian/Pacific Islander	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *
Native American	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *
Total	38 (100%)	40 (100%)	42 (100%)	31 (100%)	55 (100%)	43 (100%)	251 (100%)
<b>Risk Factor</b>							
IDU	9 (24%)	8 (20%)	9 (21%)	<5 *	8 (15%)	5 (12%)	44 (18%)
Heterosexual Contact	14 (37%)	17 (43%)	9 (23%)	13 (42%)	21 (38%)	11 (26%)	88 (35%)
Transfusion	<5 *	<5 *	<5 *	<5 *	<5 *	5 (12%)	10 (4%)
No Risk Specified	15 (40%)	15 (35%)	22 (52%)	13 (42%)	24 (44%)	22 (51%)	108 (43%)
Total	38 (100%)	40 (100%)	42 (100%)	31 (100%)	55 (100%)	43 (100%)	251 (100%)

\* Cell contained less than five cases

## Highlights

Of the 858 HIV cases diagnosed and reported to the Rhode Island Department of Health from January 1, 2000 – December 31, 2005:

- a) Males accounted for 71% of the cases and females accounted for 29%.
- b) The majority of cases were between the ages of 30 and 39.
- c) By Race/Ethnicity
  - Among men, Whites accounted for the majority of case (45%), followed by African Americans (27%) and Hispanics (26%).
  - Among Women, African Americans accounted for the majority of cases (41%), followed by Hispanics (31%) and Whites (27%).
- d) By mode of exposure to HIV
  - Among men, 'MSM' is the leading mode of exposure (45% of cases), followed by 'No Risk Specified' (26%).
  - Among Women, 'No Risk Specified' is the leading mode of exposure (43% of cases), followed by Heterosexual Contact (35%).
- e) The majority of cases (86%) were residents of Providence County.

### 3) Who is experiencing differential impact from the HIV/AIDS epidemic?

#### MSM ‘Men Who Have Sex With Men’

Despite an overall decrease in the rates of HIV and AIDS incidence, MSM continues to be the leading exposure category for HIV infection among men. Figure 14 illustrates this finding over the period from January 1, 2000 to December 31, 2005. The second highest exposure category is Risk Not Specified. Whether this represents a true lack of knowledge as to how these individuals were infected or a reluctance to reveal an MSM orientation or any other risk factor requires further exploration.

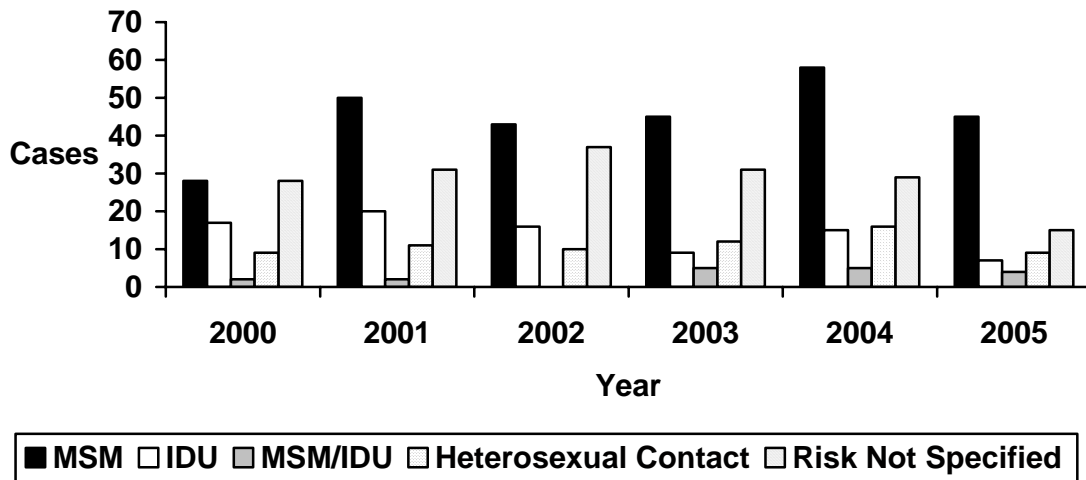


Figure 14. HIV (not AIDS) Incidence Among Men by Exposure Category 2000-2005.

As for the racial distribution of HIV infection among the MSM population, Whites account for the vast majority of MSM infected with HIV 62%, compared to 18% for African Americans and 18% for Hispanics. HIV disproportionately affects African American and Hispanic MSMs; they represent 14% of Rhode Island’s population and account for 36% of the MSM infected with HIV. Looking at the rates per 100,000 illustrates a much clearer picture. Figures 15 and 16, illustrate these findings in the period from January 1, 2000 to December 31, 2004.

Figure 15. HIV Infected MSM by Race, 2000-2005

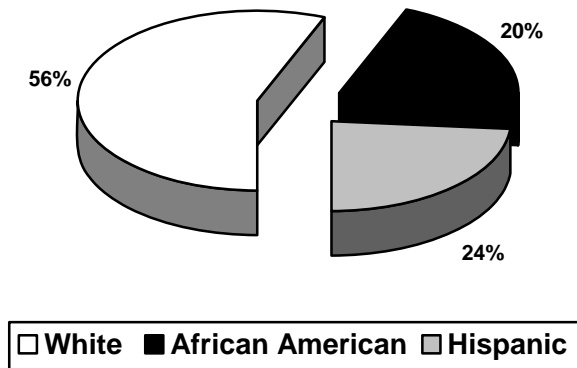
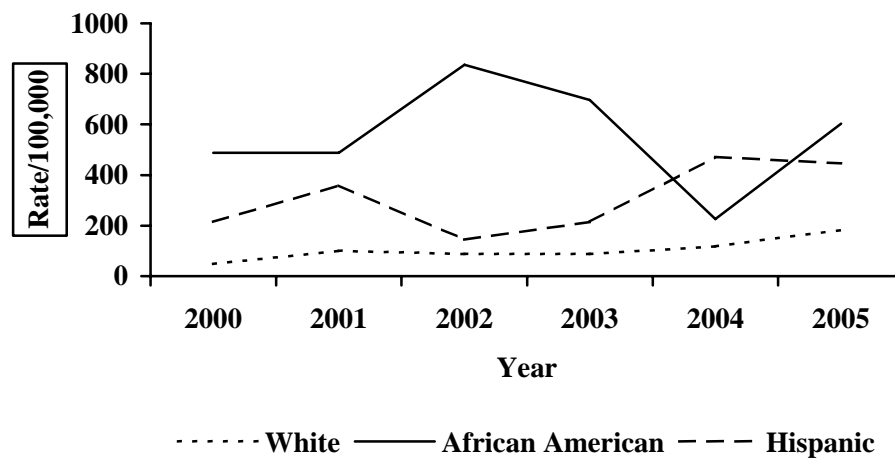


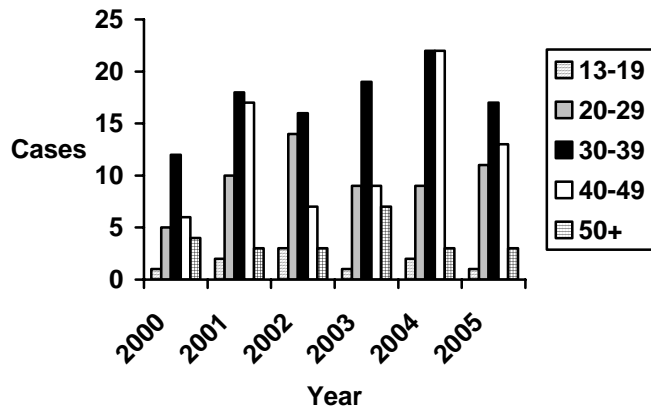
Figure 16. HIV Rates Among MSMs by Race, 2000-2004



*\*This graph was made with the assumption that MSMs make up about 9% of the adult male population 13 years of age and older in Rhode Island. Rates are based on the 2000 RI population as calculated by the U.S. Census Bureau*

The age distribution of MSM infected with HIV, from January 1, 2000 to December 31, 2004, follows a similar pattern to the overall individuals infected with HIV, with the majority between 30 – 39 years of age.

Figure 17. HIV Infected MSM by Age and Year of Diagnosis, 2000-2005





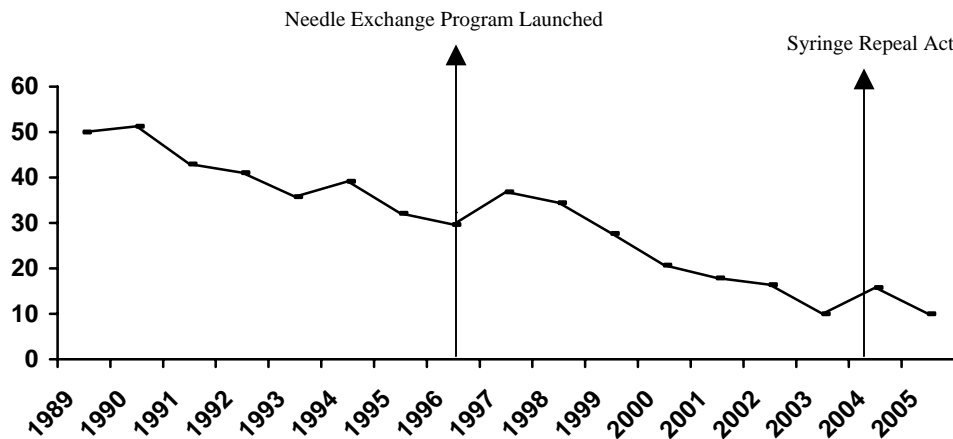
## IDU ‘Intravenous Drug Users’

While Intravenous Drug Use remains a significant risk factor for HIV infection, there has been a steady decline in both HIV (not AIDS) and AIDS cases associated with IDU. HIV infection due to intravenous drug use as a risk factor dropped from 50% in 1989 to 16% in 2004. The decline in both AIDS and HIV cases associated with IDU follows a national trend.

We believe that a myriad of factors contributed to this decline. Education among IDUs on safer needle use practices, availability of clean needles and needle cleaning kits through needle exchange programs, the availability of non-prescription needle sales at pharmacies and a general shift away from parenteral drugs among illicit drug users in the past years.

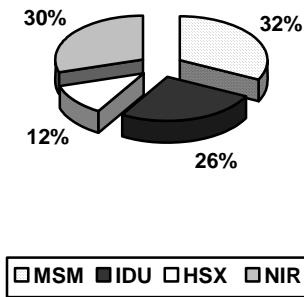
Rhode Island is one of the states that has a Needle Exchange Program; the Rhode Island Needle Exchange Program was launched in 1995. The Syringe Repeal Act was passed in Rhode Island in 2002, which now allows individuals to purchase needles at pharmacies without the need of a prescription. The following chart shows the overall decline in HIV cases due to IDU in the period from 1989-2005.

Figure 18. Percentage of HIV Cases with IDU as their Identified Mode of Transmission

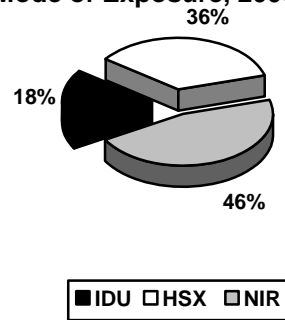


26% of HIV infected Hispanic men and 18% of HIV infected Hispanic women acquired their infection through IDU in the period from 2000-2005.

**Figure 19.**  
HIV Infected Hispanic Men By  
Mode of Exposure, 2000-2005

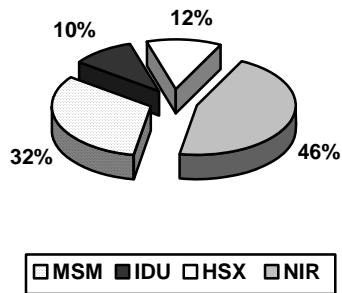


**Figure 20.**  
HIV Infected Hispanic Women By  
Mode of Exposure, 2000-2005

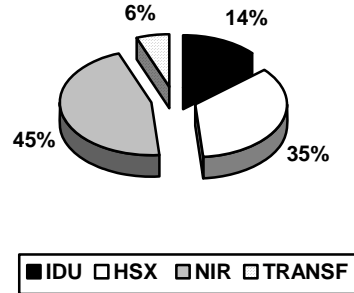


10% of HIV infected African American men and 14% of HIV infected African American women acquired their infection through IDU.

**Figure 21.**  
HIV Infected African American  
Men By Mode of Exposure,  
2000-2005

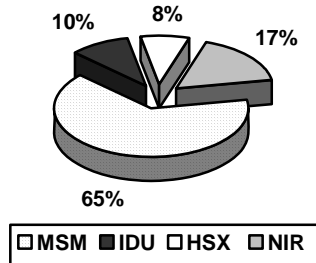


**Figure 22.**  
HIV Infected African American  
Women By Mode of Exposure,  
2000-2005

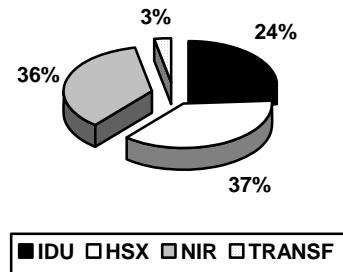


10% of HIV infected White men and 24% of HIV infected White women acquired their infection through IDU in the period from 2000-2005.

**Figure 23. HIV Infected White Men  
By Mode of Exposure, 2000-2005**



**Figure 24. HIV Infected White  
Women By Mode of Exposure,  
2000-2005**



While IDU remains a major risk factor for HIV for both men and women, a greater proportion of women are infected with HIV through IDU. Among Rhode Island women, a greater proportion of minority women (African American and Hispanic) are infected through IDU when compared with their white counterparts. Tables 9 and 10 show the demographic characteristics of the HIV infected men and women with IDU as their mode of exposure.

**Table 9. Demographic Characteristics of HIV Infected Male IDU by Year of Diagnosis**

	2000	2001	2002	2003	2004	2005	Total
<b>Race</b>							
White	7 (36.8%)	5 (25.0%)	9 (56.3%)	5 (35.7%)	8 (40%)	<5*	35 (36%)
Black	<5 *	<5 *	<5 *	<5 *	<5 *	<5*	18 (19%)
Hispanic	9 (47.4%)	12 (60.0%)	<5 *	7 (77.8%)	8 (40%)	<5*	43 (45%)
Asian/Pac Islander	<5 *	<5 *	<5 *	<5 *	<5 *	<5*	<5*
Native American	<5 *	<5 *	<5 *	<5 *	<5 *	<5*	<5*
<b>Total</b>	<b>19 (100%)</b>	<b>20 (100%)</b>	<b>16 (100%)</b>	<b>14 (100%)</b>	<b>20 (100%)</b>	<b>7 (100%)</b>	<b>96 (100%)</b>
<b>Age Group</b>							
13-19	<5 *	<5 *	<5 *	<5 *	<5 *	<5*	<5*
20-29	<5 *	<5 *	<5 *	<5 *	<5 *	<5*	8 (8%)
30-39	6 (31.6%)	8 (40.0%)	<5 *	6 (42.9%)	7 (35.0%)	<5*	32 (33%)
40-49	12 (63.2%)	6 (30.0%)	8 (50.0%)	6 (42.9%)	10 (50.0%)	<5*	46 (48%)
50+	<5 *	<5 *	<5 *	<5 *	<5 *	<5*	10 (10%)
<b>Total</b>	<b>19 (100%)</b>	<b>20 (100%)</b>	<b>16 (100%)</b>	<b>14 (100%)</b>	<b>20 (100%)</b>	<b>7 (100%)</b>	<b>96 (100%)</b>

Table10. Demographic Characteristics of HIV Infected Female IDU by Year of Diagnosis

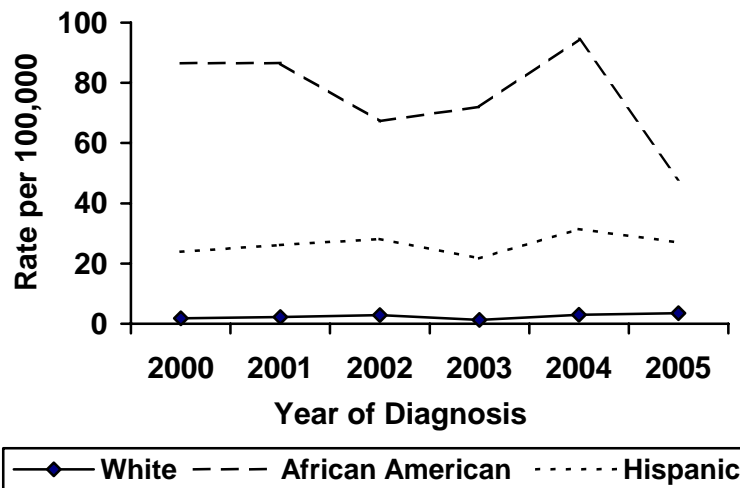
	2000	2001	2002	2003	2004	2005	Total
<b>Race</b>							
White	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	16 (36%)
Black	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	14 (32%)
Hispanic	<5 *	<5 *	5 (55.6%)	<5 *	<5 *	<5 *	14 (32%)
Asian/Pac Islander	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *
Native American	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *
Total	9 (100%)	8 (100%)	9 (100%)	4 (100%)	8 (100%)	5 (100%)	44 (100%)
<b>Age Group</b>							
13-19	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5*
20-29	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	10 (15%))
30-39	7 (77.8%)	<5 *	5 (55.6%)	<5 *	<5 *	<5 *	24 (22%)
40-49	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	9 (20%)
50+	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5*
Total	9 (100%)	8 (100%)	9 (100%)	4 (100%)	8 (100%)	5 (100%)	44 (100%)

## Minority Women

In the period between January 1, 2000 to December 31, 2005, 251 women were diagnosed with HIV (not AIDS) in Rhode Island. African American and Hispanic women who represent 14% of Rhode Island's female population accounted for 72% of those cases. The impact of HIV on African American and Hispanic women far exceeds that on African American and Hispanic men who account for 53% of all men diagnosed with HIV during the same time period.

While African Americans and Hispanics of both genders are disproportionately affected by the epidemic the impact on minority women is tremendous. Figure 25 best illustrates the disproportionate impact of HIV on minority women as it shows the rate of HIV infection by race per 100,000 women.

Figure 25. HIV Rates Among Women by Race/Ethnicity, Rhode Island, January 1, 2000-December 31, 2005

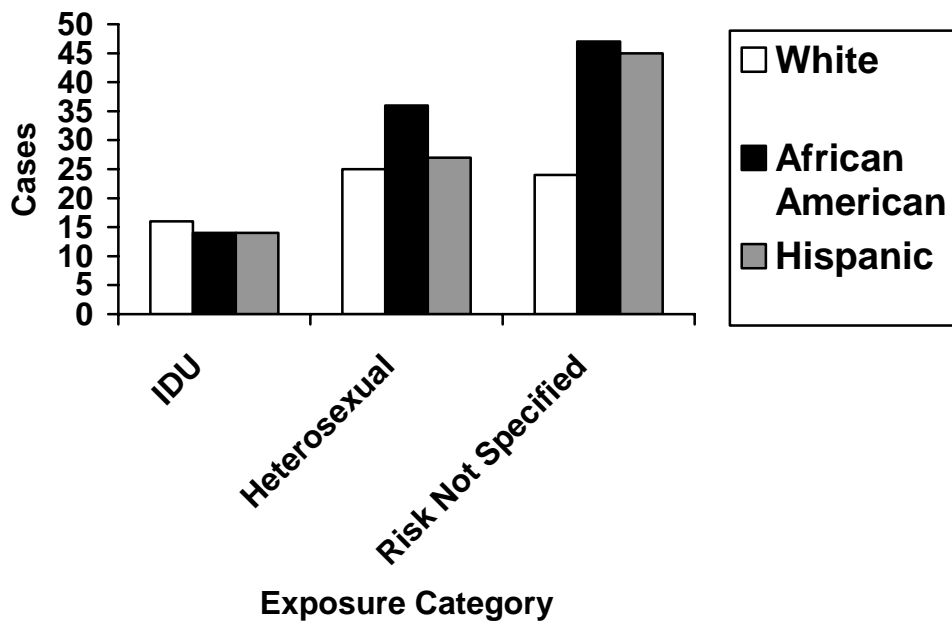


*Rates are per 100,000 population. Rates are based on 2000 RI population as calculated by the U.S. Census Bureau.*

As for the exposure category, White women have the highest number of cases with IDU as their mode of exposure to HIV, while African American and Hispanic women have a highest number of cases with heterosexual contact and unknown risk factors as their mode of exposure to HIV.

It is worth mentioning that a large proportion of African American and Hispanic women have an unspecified risk of exposure. Whether this represents a true lack of knowledge as to how they were infected or not, requires further investigation. Figure 18 illustrates the aforementioned findings.

Figure 26. HIV cases Among Women by Exposure Category, Rhode Island, January 1, 2000-December 31, 2005



## Inmates of the Rhode Island ACI ‘Adult Correctional Institution’

Prison inmates accounted for 26 percent of newly diagnosed HIV cases (31 of 121 cases) in 2000, 21 percent (31 of 150 cases) in 2001, 19 percent (28 of 146 cases) in 2002, 22 percent (29 of 134 cases) in 2003, 14 percent (25 of 178 cases) in 2004 and 13 percent (16 of 124 cases) in 2005. The demographic characteristics of prison inmates newly diagnosed with HIV were similar in most years. Most cases of HIV were diagnosed among persons between the ages of 30 and 39 and most were males. Among prison inmates newly diagnosed with HIV, most were African Americans, followed closely by Hispanics and then Whites. Risk Not Specified and IDU were more commonly associated with HIV infection among prison inmates than other risk factors.

Table 11. Percentage of newly diagnosed cases of HIV, RI prison inmates, January 1, 2000-December 31, 2005, by demographic characteristics

	2000	2001	2002	2003	2004	2005	Total
<b>Gender</b>							
Male	26 (87%)	27 (87%)	24 (86%)	25 (83%)	24 (96%)	13 (81%)	139 (87%)
Female	<5 *	<5 *	<5 *	5 (27%)	<5 *	<5*	21 (13%)
Total	30 (100%)	31 (100%)	28 (100%)	30 (100%)	25 (100%)	16 (100%)	160 (100%)
<b>Race</b>							
White	8 (26%)	<5 *	11 (39%)	<5 *	11 (44%)	6 (38%)	44 (28%)
African American	10 (32%)	12 (39%)	10 (36%)	15 (50%)	5 (20%)	6 (38%)	58 (36%)
Hispanic	10 (33%)	15 (48%)	7 (25%)	10 (33%)	9 (36%)	<5*	55 (34%)
Asian/Pacific Islander	<5 *	<5 *	<5 *	<5 *	<5 *	<5*	<5*
Native American /Alaska Native	<5 *	<5 *	<5 *	<5 *	<5 *	<5*	<5*
Total	30 (100%)	31 (100%)	28 (100%)	30 (100%)	25 (100%)	16 (100%)	160 (100%)
<b>Age Group</b>							
13-19	<5 *	<5 *	<5 *	<5 *	<5 *	<5*	<5*
20-29	6 (20%)	7 (23%)	5 (18%)	5 (17%)	<5 *	<5*	29 (18%)
30-39	15 (50%)	17 (55%)	12 (43%)	15 (50%)	13 (52%)	6 (38%)	78 (49%)
40-49	6 (20%)	7 (23%)	11 (39%)	8 (27%)	9 (36%)	6 (38%)	47 (29%)
50+	<5 *	<5 *	<5 *	<5 *	<5 *	<5*	6 (4%)
Total	30 (100%)	31 (100%)	28 (100%)	30 (100%)	25 (100%)	16 (100%)	160 (100%)
<b>Exposure Category</b>							
MSM	<5 *	<5 *	<5 *	<5 *	5 (20%)	<5 *	19 (12%)
IDU	6 (19%)	9 (29%)	6 (21%)	6 (20%)	5 (20%)	<5 *	35 (22%)
MSM/IDU	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5*
Heterosexual Contact	<5 *	5 (16%)	<5 *	<5 *	<5 *	<5 *	10 (6%)
Hemophilia	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5*
No Risk Specified	18 (60%)	16 (52%)	18 (64%)	21 (70%)	12 (70%)	7 (44%)	92 (58%)
Total	30 (100%)	31 (100%)	28 (100%)	30 (100%)	25 (100%)	16 (100%)	160 (100%)

\* Cell contained less than 5 cases

## **Persons Unaware of Their HIV Status**

The Centers for Disease Control and Prevention (CDC) estimates that 24% to 27% of those infected with HIV are unaware of their status. Those individuals do not seek medical treatment and hence are unable to experience the overall improvement in quality of life, experienced by other HIV infected individuals, owed to improvement in health services and advances in treatment modalities. Furthermore they do not receive any education on behavioral risk reduction and therefore continue to be a potential source for HIV transmission.

Individuals who became aware of their positive HIV status, around the time when they were diagnosed with AIDS, are persons who were unaware of their infection for the most part and were diagnosed late in the course of their infection. Thus, they are representative of those that are infected but unaware of their status.

215 individuals become aware of their positive HIV status when diagnosed with AIDS in the period from 2000-2005, which is 25% of the 858 individuals diagnosed with HIV in the same time period.

32% of the individuals who became aware of their HIV status when diagnosed with AIDS were females, 68% were males. The majority of those who become aware of their HIV status when diagnosed with AIDS were Whites 37%(who represent 82% of the population), followed by African Americans 32% (who represent 5% of the population), and Hispanics 29%(who represent 9% of the population). African Americans and Hispanics make up the vast majority of those who become aware of their HIV status when diagnosed with AIDS. The primary risk factor among those who become aware of their HIV status when diagnosed with AIDS is heterosexual contact (47%), followed by MSM (26%) and IDU (18%).

Table 12 provides a comparison of demographic characteristics among those who become aware of their positive HIV status when diagnosed with AIDS and those diagnosed with HIV alone.



Table 12. Comparison of the Demographic Characteristics of Individuals Diagnosed with HIV Only and Individuals Who Become Aware of Their Positive HIV Status When Diagnosed with AIDS, January 1, 2000 to December 31, 2005.

Demographic Characteristics	Individuals Diagnosed with HIV (only), 2000-2005	Individuals Diagnosed with HIV and AIDS, 2000-2005
<b>Gender</b>		
Male	463 (72%)	145 (68%)
Female	148 (27%)	70 (32%)
Total	644 (100%)	215 (100%)
<b>Age Group</b>		
<13	<5 *	<5 *
13-19	19 (3%)	<5 *
20-29	144 (22%)	25 (12%)
30-39	269 (42%)	77 (36%)
40-49	152 (24%)	87 (40%)
50+	49 (8%)	22 (10%)
Total	644 (100%)	215 (100%)
<b>Race/Ethnicity</b>		
White	260 (40%)	80 (37%)
African American	200 (31%)	69 (32%)
Hispanic	172 (27%)	62 (29%)
Asian	10 (2%)	<5 *
Native American	<5 *	<5 *
Total	644 (100%)	215 (100%)
<b>Risk Factor</b>		
MSM	214 (33%)	55 (26%)
IDU	86 (13%)	39 (18%)
MSM / IDU	13 (2%)	5 (2%)
Heterosexual	67 (9%)	102 (47%)
Contact		
Transfusion	<5 *	<5 *
No Risk	258 (40%)	<5 *
Specified		
Total	644 (100%)	215 (100%)

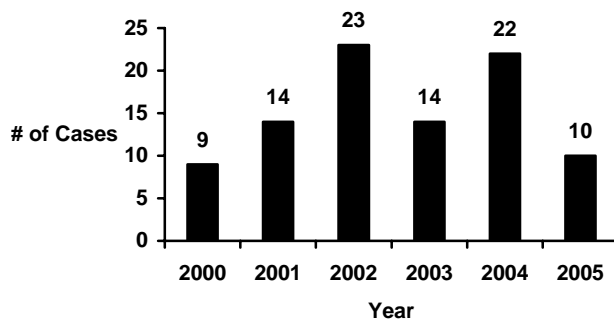
\* Cell contained less than five cases

## Youth and HIV

In the United States, HIV-related death has the greatest impact on young and middle-aged adults, particularly racial and ethnic minorities. In 1999, HIV was the fifth leading cause of death for Americans between the ages of 25-44. Among African American men in this age group, HIV has been the leading cause of death since 1991. In 1999, among black women 25-44 years old, HIV infection was the third leading cause of death. Many of these young adults likely were infected in their teens and twenties. It has been estimated that at least half of all new HIV infections in the United States are among people under 25, with the majority of young people being infected sexually (Rosenberg PS, Biggar RJ, Goedert JJ. Declining age at HIV infection in the United States [letter]. *New Engl J Med* 1994; 330:789-90)

Thirteen percent (110 out of 858) of all the HIV cases diagnosed in Rhode Island in the period from January 1, 2000 to December 31, 2005 occurred in individuals 13 – 24 years of age. There has been a steady rise in the incidence of HIV among this age group in the past couple of years, however in 2005 we observed a decrease. Figure 23 illustrates these findings.

Figure 27. HIV Incidence among Youth (13-24 years old), 2000-2005



Of the 110 cases diagnosed among youth 66 were males and 44 were females. Youth of racial and ethnic minorities were heavily impacted with 38% (42 cases) occurring in African American youth, 25% (27 cases) occurring in Hispanic youth and 34% (37 cases) occurring in White youth.

Among males, Men who Have Sex with Men (56%) was the most common risk category followed by Unspecified Risk (29%). Among females Unspecified Risk (49%) was the most common risk category followed by Heterosexual Contact (41%). Figures 28 and 29 illustrate these findings.

Figure 28. HIV Rates Among Male Youth by Exposure Category, Rhode Island, 2000-2005

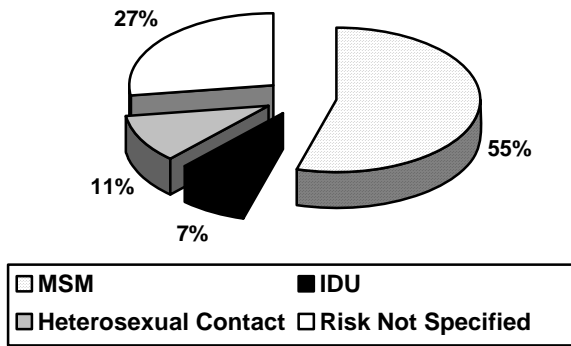
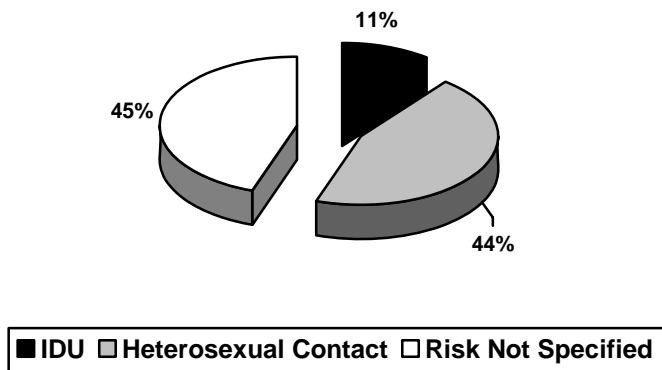


Figure 29. HIV Rates Among Female Youth by Exposure Category, Rhode Island, 2000-2005



# Appendix

## Surrogate Data in Rhode Island

### STD Epidemiology Summary: Rhode Island, 2005

Table 13. Demographic characteristics of reported Chlamydia, gonorrhea and syphilis cases, Rhode Island 2005

Disease	Chlamydia	Gonorrhea	Syphilis (Primary, Secondary)	Syphilis (Early Latent)*	Syphilis (All Late Stages)
Characteristics:					
Total # of cases	3,269	438	24	5	35
Case rate per 100,000 population (based on 2000 estimate of the population)	311.8	41.8	2.3	0.5	3.3
Gender					
Male	868	211	22		30
Female	2,396	227	7		5
Unknown	5	0	0		0
Race/Ethnicity					
Non-Hispanic White	852	183	14		11
Non-Hispanic Black	656	159	7		6
Hispanic (All races)	821	73	8		13
Asian/Pacific Islander	83	<5	0		<5
American Indian/Alaskan Native	18	<5	0		0
Other/Unknown	839	18	0		<5
Age (Years)					
< 10	<5	<5	0		0
10 – 14	32	<5	0		0
15 – 19	1,075	102	0		<5
20 – 24	1,241	145	7		<5
25 – 29	505	87	<5		5
30 – 34	202	35	<5		<5
35 – 39	107	26	6		<5
40 – 44	51	17	6		<5
45 – 54	45	15	<5		8
55 – 64	7	<5	<5		<5
65 +	0	<5	0		<5
Unknown	<5	<5	0		0

\* The five cases of early latent syphilis in 2005 are combined with twenty-four cases of primary and secondary syphilis for analysis by demographic characteristics. The twenty-nine cases constitute the category “Early syphilis”.

Table 13. (Cont.) Demographic characteristics of reported chlamydia, gonorrhea and Syphilis cases, Rhode Island 2005

Disease	Chlamydia	Gonorrhea	Syphilis (Primary, Secondary)	Syphilis (Early latent)	Syphilis (All Late Stages)
Residence					
County					
Bristol	48	9	0		0
Kent	217	27	<5		<5
Newport	155	16	<5		<5
Providence	2,658	368	22		29
Washington	186	15	<5		0
Unknown	5	<5	0		<5
City/Town					
Barrington	6	0	0		0
Bristol	28	<5	0		0
Burrillville	14	<5	0		0
Central Falls	135	17	<5		<5
Charlestown	10	<5	0		0
Coventry	35	6	<5		0
Cranston	194	23	<5		<5
Cumberland	42	6	0		<5
East Greenwich	9	<5	0		0
East Providence	95	16	0		<5
Exeter	28	<5	0		0
Foster	5	<5	0		0
Glocester	<5	0	0		0
Hopkinton	12	0	0		0
Jamestown	<5	0	0		0
Johnston	42	8	<5		<5
Lincoln	25	<5	0		0

Disease	Chlamydia	Gonorrhea	Syphilis (Primary, Secondary)	Syphilis (Early latent)	Syphilis (All Late Stages)
Residence					
City/Town (cont.)					
Little Compton	<5	<5	0		0
Middletown	23	<5	<5		0
Narragansett	25	<5	<5		0
New Shoreham	<5	0	0		0
Newport	100	8	0		<5
North Kingstown	27	<5	0		0
North Providence	66	14	<5		<5
North Smithfield	10	<5	0		0
Pawtucket	386	53	<5		<5
Portsmouth	14	<5	0		0
Providence	1,428	188	12		11
Richmond	0	0	0		0
Scituate	8	<5	0		0
Smithfield	18	<5	0		0
South Kingstown	64	8	0		0
Tiverton	13	<5	<5		<5
Warren	14	7	0		0
Warwick	115	13	0		<5
West Greenwich	<5	0	<5		0
West Warwick	55	5	0		<5
Westerly	18	<5	0		0
Woonsocket	186	35	<5		<5
Unknown	5	<5	0		<5

Created on 06/27/2006 by Michael Gosciminski MT, MPH

**SYPHILIS:** The year 2004 marked the fourth year in a row that there was a rise in the number of cases of primary and secondary syphilis in the United States with a 11% increase from 2003 to 2004 and an increase of 34% from 2000 to 2004. Increases of primary and secondary syphilis among men who have sex with men (including bisexuals) of all races have been noted to be associated with outbreaks in large cities, such as Chicago, Los Angeles, New York City, San Francisco, Seattle and Miami.

Rhode Island, like many other parts of the country, has also seen an increase in the reports of infectious syphilis, which comprises primary, secondary and early-latent

syphilis. In 2004, Rhode Island's rate of primary and secondary syphilis ranked fourteenth in the nation at 2.4 cases/100,000 people. In 2005, the Rhode Island rate of primary and secondary syphilis decreased to 2.3 cases / 100,000 people.

Overall, there were 29 cases of infectious syphilis statewide in 2005, a decrease of 29.3% over the 41 reported cases in 2004. Even with this significant decrease, it is still a 480% increase in infectious syphilis from the number of cases reported in 2000. Twenty-two of the twenty-nine reported cases (75%) were male and fourteen of those twenty-two cases (64%) were men who have sex with men. Of the latter, two were self-reported to be HIV positive. Unlike gonorrhea and Chlamydia, where infection is distributed mostly among the 15-24 year old population, the cases of infectious syphilis reported in Rhode Island had an average age of 35 years old.

Table 14: Demographic characteristics of Infectious Syphilis Cases Rhode Island 2000 - 2005

	2000		2001		2002		2003		2004		2005	
	#	Rate*	#	Rate*	#	#	Rate*	Rate*	#	Rate*	#	Rate*
Statewide	5	0.5	12	1.1	22	2.2	40	3.8	41	3.9	29	2.8
Core Cities (Providence, Pawtucket, Central Falls)	2	0.8	9	3.4	16	6.0	21	7.9	30	11.3	16	6.0
Average Age	32	--	39	--	34	--	37	--	35	--	37	--
Hispanic	1	1.1	0	0	8	8.8	3	3.3	13	14.3	8	8.8
Black	3	7.2	2	4.8	2	4.8	7	16.7	4	9.5	7	16.7
White	1	0.1	10	1.2	12	1.4	27	3.1	24	2.8	14	1.6

	2000		2001		2002		2003		2004		2004	
	#	%	#	%	#	#	%	%	#	%	#	%
<b>Males</b>	<b>3</b>	<b>60.0</b>	<b>11</b>	<b>91.7</b>	<b>17</b>	<b>25</b>	<b>61.0</b>	<b>72.5</b>	<b>25</b>	<b>61.0</b>	<b>22</b>	<b>75.0</b>
Males who were MSM's	Unk.	--	3	27.3	12	16	64.0	65.5	16	64.0	14	63.6
MSM's who are self-reported HIV+	Unk.	--	2	66.7	6	3	18.8	63.2	3	18.8	2	15.4
<b>Females</b>	<b>2</b>	<b>40.0</b>	<b>1</b>	<b>8.3%</b>	<b>5</b>	<b>16</b>	<b>39.0</b>	<b>27.5</b>	<b>16</b>	<b>39.0</b>	<b>7</b>	<b>25.0</b>
Women who had sex in exchange for money/drugs	---	--	--	--	0	5	31.3	54.5	5	31.3	2	28.6

\* Rates are expressed as cases/100,000 population. Rates are based on the 2000 Rhode Island population as calculated by the U.S. Bureau of the Census.

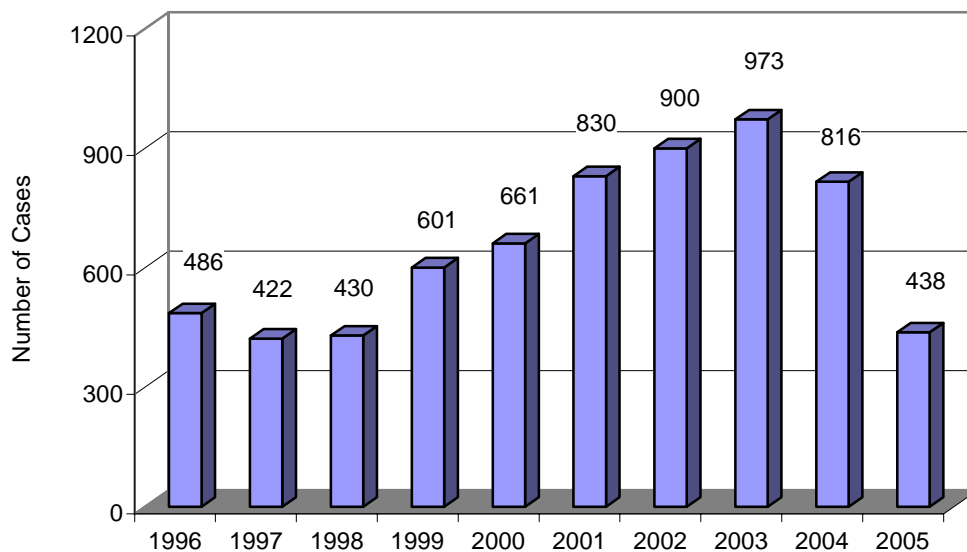
**GONORRHEA:** The year 2005 marked the second year in a row where the number of gonorrhea case in Rhode Island declined when compared to the previous year. There were 438 cases of gonorrhea reported in 2004 compared to 816 cases in 2004. This corresponds to an 46% decrease in the number of cases reported to HEALTH from 2004



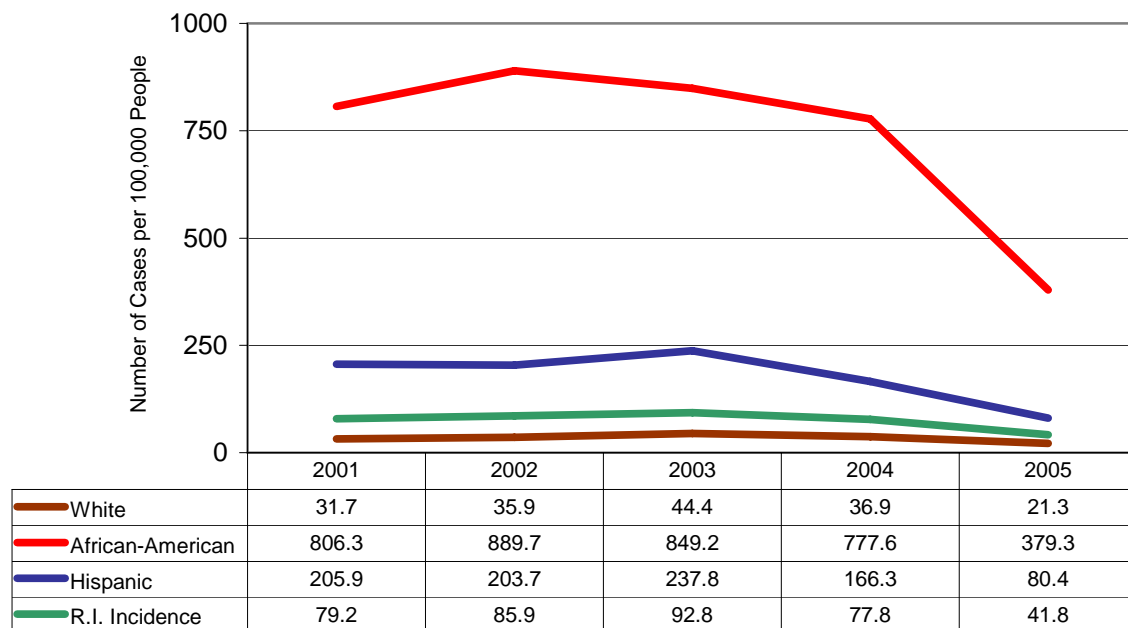
to 2005 and an overall decrease of 55% when compared to the 973 cases reported in 2003.

The reason for the sudden decrease in the reported cases of gonorrhea since 2003 is unclear. One theory could be that with the increased use of sensitive tests beginning in the late 1990's, along with increased STD screening in females lead to increased gonorrhea case finding, especially those cases who were asymptomatic. This corresponds to the time that the number of reported gonorrhea cases in Rhode Island began to increase and reached a peak in 2003. Over time, the pool of asymptomatic gonorrhea carriers may have decreased due to the screening activities of the last decade and in turn has lead to a lower rate of transmission of gonorrhea.

**Figure 30: Reported Cases of Gonorrhea,  
Rhode Island, 1996-2005**



**Figure 31: Gonorrhea Rates\*by Raceand Ethnicity, Rhode Island, 2001-2005**



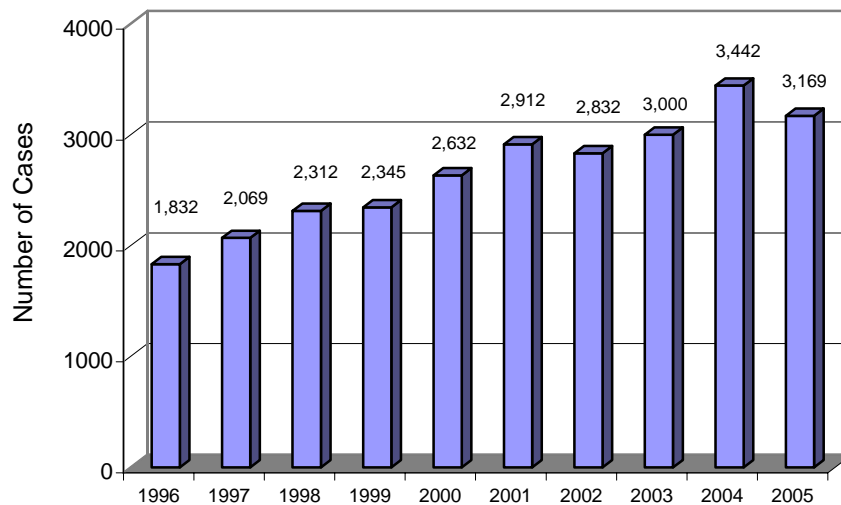
\* Rates are expressed as cases/100,000 people. Rates are based on the 2000 RI population as calculated by the U.S. Bureau of the Census. The rates for 2003 and 2004 are estimates due to missing race/ethnicity data.

Prepared by the Rhode Island STD Program, HEALTH, June 2006

During the past five years, African Americans have had the highest incidence rates of gonorrhea followed by Hispanics and Whites. As can be seen by the figure above, the gap between the incidence rates in Hispanics and Whites decreased significantly in 2005 mainly because of a large decrease in the gonorrhea incidence rate among the Hispanics.

**CHLAMYDIA:** There were 3,169 cases of Chlamydia reported to HEALTH in 2005. This represents a 8% decrease from the 3,442 cases reported in 2004, which was the highest number of Chlamydia cases reported in a year since it became a reportable disease in Rhode Island. Like in past years in Rhode Island, females accounted for approximately three-quarters of the Chlamydia cases. The discrepancy between males

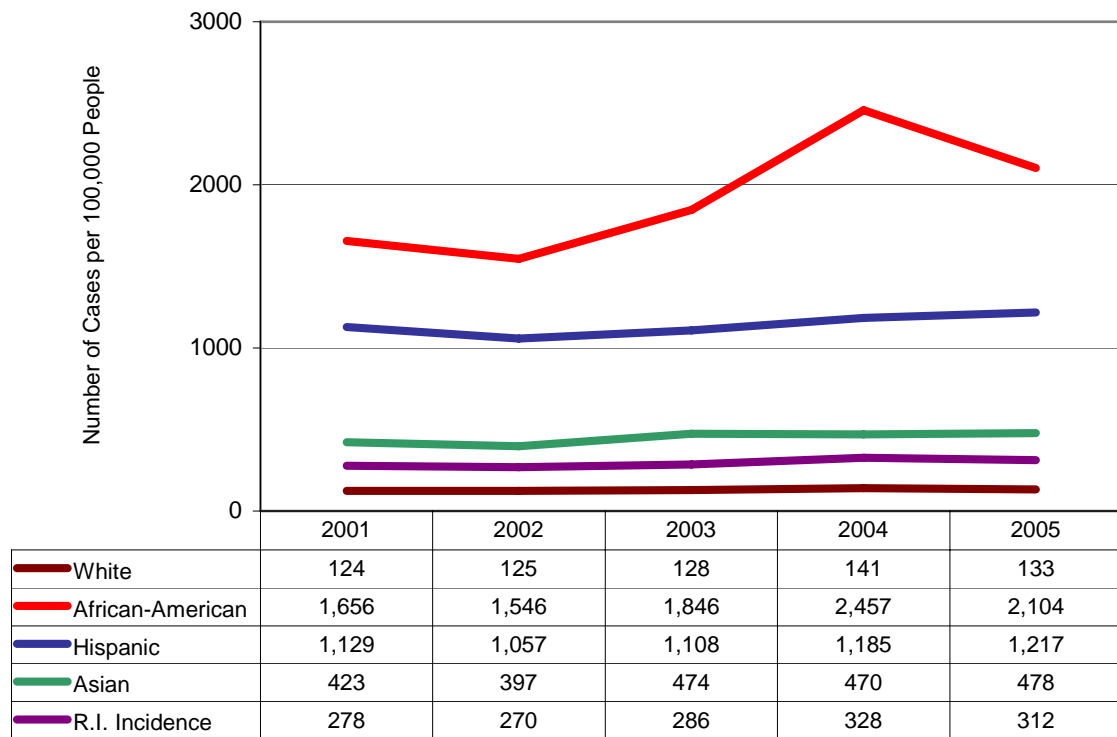
**Figure 32: Reported Cases of Chlamydia, Rhode Island, 1996-2005**



and females is more than likely due to the increased use of screening for Chlamydia in females rather than the lack of infections in males.

The rates of Chlamydia infection is higher among African American people than Hispanics and White, which is similar to the HIV infection and the gonorrhea distribution among the people of different race and ethnicity. This can be explained by the fact that the transmission of HIV and most of the sexually transmitted diseases involves engagement in similar high risk sexual activities.

**Figure 33: Chlamydia Rates\* by Race and Ethnicity, Rhode Island, 2001-2005**



\* Rates are expressed as cases/100,000 people. Rates are based on the 2000 RI population as calculated by the U.S. Bureau of the Census. The rates for 2003 - 2005 are estimates due to missing race/ethnicity data.

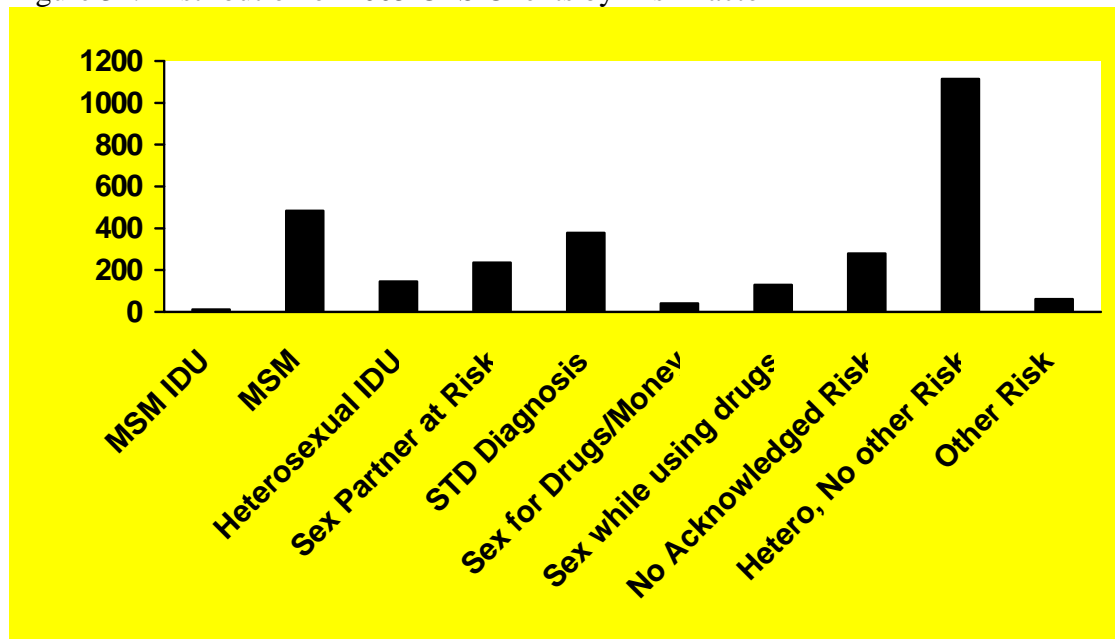
Prepared by the Rhode Island STD Program, HEALTH, June 2005

## CTS (Counseling Testing and Referral Sites) in Rhode Island

Publicly funded counseling and testing services provided by the Department of Health in collaboration with the CDC (Centers for Disease Control and Prevention) were initiated in 1985 to provide alternatives to blood donation as a means for high –risk persons to determine their HIV status. These services became an integral part of HIV prevention programs and the HIV Counseling and Testing System (CTS) was developed to monitor client’s use of program services. CTS provide anonymous (no identifying information recorded) and confidential (identifying information recorded) voluntary HIV counseling, testing, and referral services.

In 2005 there was a total of 2906 HIV tests performed at publicly funded CTS in Rhode Island. Of these 2906 tests 28 were positive. 738 tests were anonymous, 2149 tests were confidential and 19 were unspecified. 2019 (69%) of the individuals tested at CTS were males, 871 (30%) were females and 16 (1%) were of undetermined gender. 44% of those utilizing CTS services in 2005 were White, 22% were African American, 26% were Hispanic, 3% were Asian or Pacific Islander, 2% were native Americans, and 2% were of undetermined race. The majority of CTS clients were in the 20 to 29 years old age group (41%). Figure 32 illustrates the Distribution of clients by risk factors. We find in order of magnitude that heterosexuals were the largest group to utilize CTS services, followed by MSM and those with a STD diagnosis.

Figure 34. Distribution of 2005 CTS Clients by Risk Factor

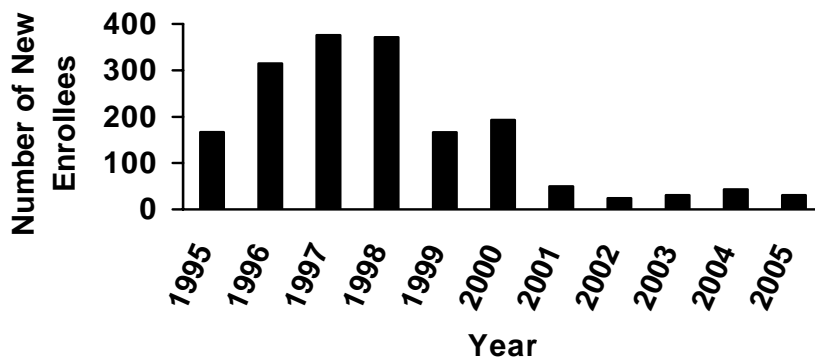


## ENCORE: Rhode Island's Needle Exchange Program

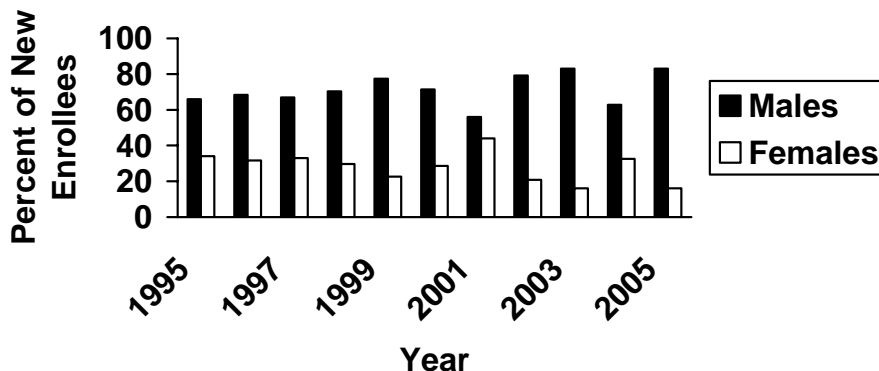
ENCORE (Education, Needle Exchange, Counseling, Outreach and Referral) is an anonymous and confidential harm reduction program, coordinated by the Office of HIV/AIDS in Rhode Island since April 1995. The purpose of the needle exchange program is to prevent HIV transmission by giving injection drug users the tools (such as new syringes, bleach, clean cotton, alcohol swabs, condoms, information on skin care, and counseling and/or referrals) to protect themselves from acquiring blood-borne pathogens from contaminated needles and other drug paraphernalia. The information provided in the mandatory enrollment interview is helpful in identifying the risk behaviors of current IDUs in Rhode Island.

The following figures present number and demographic characteristics of the ENCORE enrollees.

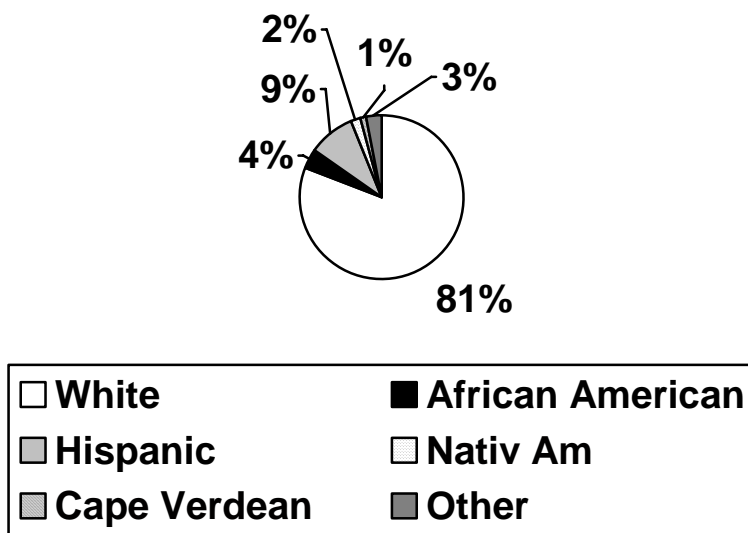
**Figure 35. New ENCORE Enrollments by Year**



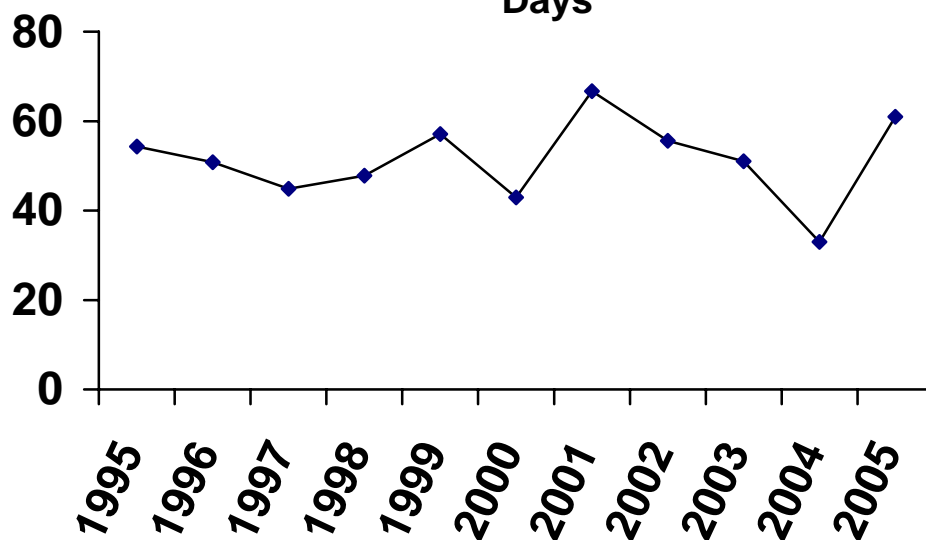
**Figure 36. Gender Distribution of New ENCORE Enrollees 1995-2005**



**Figure 37. New ENCORE Enrollees by Race/Ethnicity 1995-2005**



**Figure 38. Percent of New Enrollees Who Have NOT Shared Syringes with Others in the Past 30 Days**



## Tuberculosis (TB) in Rhode Island

- Approximately 2 billion people (one-third of the world's population) are infected with *Mycobacterium tuberculosis*, the cause of TB.
- TB is the cause of death for one out of every three people with AIDS worldwide.
- The spread of the HIV epidemic has significantly impacted the TB epidemic - one-third of the increase in TB cases over the last five years can be attributed to the HIV epidemic (Source: UNAIDS).

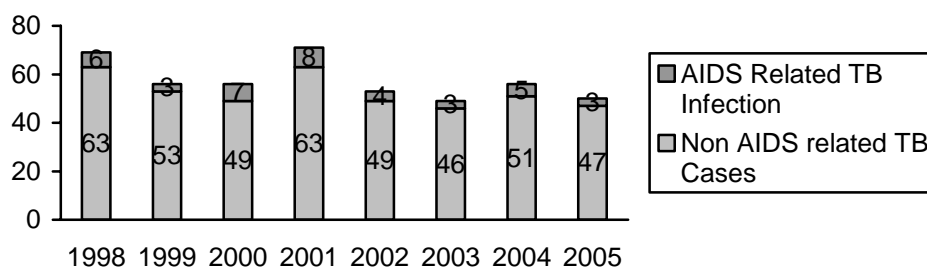
Tuberculosis (TB) is a disease that is spread from person-to-person through the air, and it is particularly dangerous for people infected with HIV. Worldwide, TB is the leading cause of death among people infected with HIV.

An estimated 10-15 million Americans are infected with TB bacteria, with the potential to develop active TB disease in the future. About 10 percent of these infected individuals will develop TB at some point in their lives. However, the risk of developing TB disease is much greater for those infected with HIV and living with AIDS. Because HIV infection so severely weakens the immune system, people dually infected with HIV and latent TB have a 100% lifetime probability of developing active TB disease and becoming infectious compared to people not infected with HIV. CDC estimates that 10 to 15 percent of all TB cases and nearly 30 percent of cases among people ages 25 to 44 are occurring in HIV-infected individuals.

This high level of risk underscores the critical need for targeted TB screening and preventive treatment programs for HIV-infected people and those at greatest risk for HIV infection. All people infected with HIV should be tested for TB, and, if infected, complete preventive therapy as soon as possible to prevent TB disease. (Source: <http://www.cdc.gov/hiv/pubs/facts/hivtb.htm>)

Rhode Island follows the national AIDS/TB co-infection trends. On average, 9% of all TB infections diagnosed in the past five years were AIDS related. Figure 33, illustrates these findings.

**Figure 39. AIDS/Non AIDS related TB Infections,  
1998-2005**





## **Viral Hepatitis C in Rhode Island**

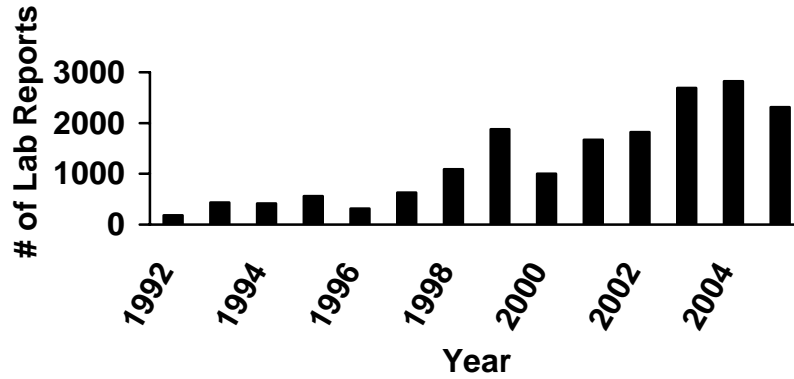
The national prevalence rate of hepatitis C was estimated at 1.8% in 1994; however, actual national prevalence is likely to be considerably higher. Low levels of public knowledge and understanding of HCV, and lack of programmatic funding for testing and referral resources even for the high risk, increase the likelihood that current prevalence rates are highly underestimated. Based on this estimate RI is likely to have as many as 16,000 prevalent cases of hepatitis C. This is a huge burden of disease, in recognition of which RI in 1998 launched a provider and public education campaign and started systematic surveillance to the extent feasible by limited resources.

The Department of Health has established a chronic hepatitis C registry in keeping with CDC guidance for the surveillance of hepatitis. The registry was in paper format from 1992 until an electronic database was created and populated in 1998. Positive laboratory reports are sent to the Department of Health. Information received from this component is recorded in an unduplicated registry of names, and serial test results are entered thus providing a record of all positive test results (preliminary and confirmatory).

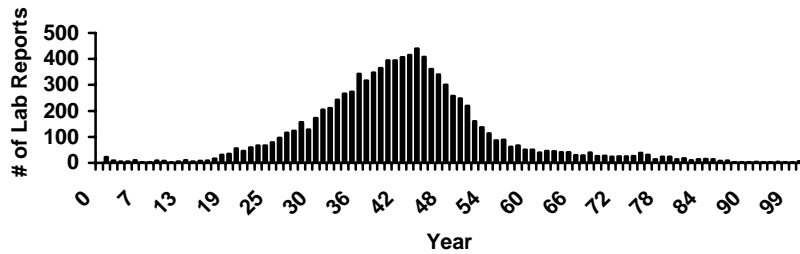
Data obtained from laboratory reporting is subject to limitations. On some reports information is missing from certain fields. Also, this reporting system depends upon the cooperation and willingness of the laboratories to report, and it is therefore possible that underreporting occurs. Bloodwork ordered to labs from drug treatment facilities are without names and have codes instead, and often are lost to the system because of inadequate follow up for transcription. Duplicates are removed from the yearly positive report totals. A limited number of duplications may not be detectable if patients concerned about the sensitivity of the information use aliases. The data received also provides strongly limited information regarding race and ethnicity due to the high percentage of "unknown" entries in this field. Approximately 15% of individuals tested HCV positive will resolve and in the absence of serial viral load testing, and in the absence of an easy to perform antigen marker test, cannot be recognized as resolved cases, and remain in the registry. Another shortcoming is that until a second confirmatory test (such as RIBA or PCR) passively makes its way into the system cases remain unconfirmed, and may represent false positives.

Laboratory reports from the years 1992-2002 give an indication of trends over this time period. The number of positive reports increased significantly from 182 reports in 1992 to 2,314 reports in 2005. Increased provider and public knowledge regarding HCV can account for a significant percentage of this increase; however, this percentage cannot be determined. The increase may be due to the tendency of positive cases to be identified years after the exposure, and disease trends have suggested that the greatest number of new cases were contracted 10-30 years ago. The following charts show a basic overview of the number of positive lab reports in Rhode Island from 1992 to 2005.

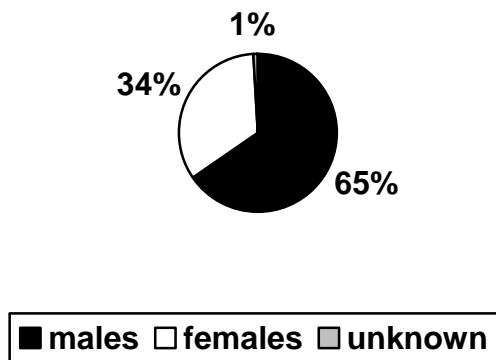
**Figure 40. Hepatitis C Lab Reports in RI by Year 1992-2005**



**Figure 41. The Age Distribution of Individuals with Positive Hepatitis C Test Results 1992-2002**



**Figure 42. Gender Distribution of Positive HCV Lab Reports**



About one quarter of HIV-infected persons in the United States are also infected with hepatitis C virus (HCV). HCV is one of the most important causes of chronic liver disease in the United States and HCV infection progresses more rapidly to liver damage in HIV-infected persons. HCV infection may also impact the course and management of HIV infection. (Source: [http://www.cdc.gov/hiv/pubs/facts/HIV-HCV\\_Coinfection.htm](http://www.cdc.gov/hiv/pubs/facts/HIV-HCV_Coinfection.htm))

The Rhode Island Department of Health has responded over the course of the past few years to the high prevalence of hepatitis C, by systematic inclusion of hepatitis C prevention and control strategies in all HIV/AIDS related programming. Rhode Island's ENCORE program consists of education, needle exchange, counseling, outreach, and referrals. Because IDU is currently the most significant mode of HCV transmission, the ENCORE program captures a portion of the highest risk population. ENCORE was designed for and has traditionally focused on HIV and AIDS. However, HIV and HCV are transmitted comparably through IDU, and integration of HCV prevention and referrals (for testing and treatment services with providers who have agreed to participate) into the ENCORE program is therefore logical and efficient. In the pre-enrollment and follow-up interviews administered to ENCORE participants, they are asked whether they have been tested or would like to be tested for hepatitis C and whether they consider themselves to be at risk for hepatitis C. Responses to these basic questions will help ascertain the level of knowledge and understanding this high-risk population has regarding hepatitis C.

Vendors providing HIV counseling and testing receive thorough HIV education and certification. Hepatitis C information has been integrated into the education, which is conducted by a public health nurse. The goal is to encourage these vendors to educate their clients about hepatitis C by integrating HCV into HIV prevention materials, trainings, and staff development. The vendors subsequently make referrals to HCV testing services as appropriate. Public education materials and HCV screening and treatment guidelines have been distributed to providers.

## **Behavioral Risk Factor Surveillance System (BRFSS)**

The BRFSS is an on-going data collection program, administered and supported by the CDC's National Center for Chronic Disease Prevention and Health Promotion. Surveys were developed and conducted to monitor state-level prevalence of the major behavioral risks among adults associated with premature morbidity and mortality. The information attained from the BRFSS is useful in describing the populations at risk for contracting HIV through their behaviors.

According to the 2000 BRFSS in Rhode Island, 31.5% of those surveyed indicated that they were at risk (either high, medium, or low) of getting infected with HIV (compared to 68.5% who responded there was no chance they could be infected with HIV). The BRFSS also revealed that 52.6% of those surveyed had been tested for HIV at some point in their lives, aside from routine screening when donating blood. 37% of those surveyed had been tested for HIV in the 12-month period prior to the survey, aside from routine screening when donating blood.

## **Youth Risk Behavior Survey (YRBS)**

The Youth Risk Behavior Survey (YRBS) is an anonymous and voluntary survey conducted on alternate years among randomly selected middle and high schools students nationwide. The YRBS is developed by the Division of Adolescent and School Health at the Centers for Disease Control and Prevention (CDC). The CDC sponsored YRBS in 44 states and 23 cities nationwide in 2005. Total number of sites participating in 2005 survey was 71. The YRBS monitors six categories of priority health risk behaviors that contribute to the major causes of mortality, disease, injury, and other health and social problems among youth in the United States. Summary findings of the 2005 survey on national and Rhode Island level are described below.

Nationwide in 2005, 46.8% of surveyed students had had sexual intercourse during their life; prevalence of which was higher among Black and Hispanic male than Black and Hispanic women students. Overall 87.9% of students were taught about HIV/AIDS in school. 11.9% of students nationwide had been tested for HIV, and prevalence of HIV testing was higher among female (13.2%) than male (10.6%). In 2005, 14.3% of high school students had had sexual intercourse with four or more persons during their life nationwide. In general, the prevalence of having had sexual intercourse with four or more persons was higher among male than female students, higher among Black than white and Hispanic students, and higher among Hispanic than white students. About 33.9% of the students nationwide were currently sexually active and among those, 62.8% reported that either they or their partner had used a condom during last sexual intercourse; prevalence of having condom used was higher among male than female.

In 2005 46.7% of Rhode Island high school students had sexual intercourse, an increase from 44% in 2003. 87.4% of high school students were taught about AIDS or HIV infection in school, a decrease from 91% in 2003. 13% of the students reported having sexual intercourse with four or more people during their life. Overall 36.5% of the students were currently sexually active and of them 34% did not use a condom in their previous sexual intercourse, a significant decrease from 47% reported in 2003; prevalence of having condom used was higher among male than female. 22% of the students were taught about AIDS/HIV in school and drank alcohol or used drug before last sexual intercourse, and the prevalence was higher in male than female.

In 2005 42.7% of Rhode Island high school students had a drink of alcohol in the past thirty days compared to 45% in 2003. 42.6% students reported ever using marijuana in 2005, a decrease from 44% in 2003. About 3% of the students reported ever having illegal injection drug.

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